LONDON JOURNAL OF MEDICINE,

A MONTHLY

Record of the Medical Sciences.

JUNE 1851.—No. XXX.

ORIGINAL COMMUNICATIONS.

ON THE CAUSES, CONSEQUENCES, AND TREATMENT OF INFLAMMATION OF THE VEINS.

By HENRY LEE, Esq., F.R.C.S.Eng., Assistant-Surgeon to King's College Hospital, etc.

In the numbers of the London Journal of Medicine for March and July 1850,[1] I have attempted to establish the following points, in reference to the Pathology and Treatment of Inflammation of the Veins.

1st. That inflammation, both of the veins and of the capillary vessels, usually depends upon irritation, communicated to them through their contents.

2ndly. That pus is capable of producing such irritation when detained in contact with the lining membrane of the veins; but that it may be conveyed along their channels, without leaving any trace of its passage.

3rdly. That pus, under ordinary circumstances, cannot circulate in living vessels, in consequence of its power of determining the coagulation of the first portions of the blood with which it is brought in contact.

4thly. That when pus is carried along a vein, it is in consequence either of the disturbance of the coagulum which has first detained it, or of the blood having in some measure lost its natural power of coagulation.

5thly. That when, in consequence of either of these conditions, pus does find its way into the circulation, it may nevertheless determine the coagulation of the blood in its passage, either in a different part of the same vessel, or in distant parts of the system.

6thly. That when the coagulation occurs in a distant part of the body, it is usually observed in capillary vessels.

[1] Mr. Lee's valuable Essay has been published in a separate form by Mr. Renshaw. Ed. Lond. Journ. of Med.

7thly. That when it occurs in a large vein, it may affect the circulation through the whole of the vessels which supply it; and that if, for example, a coagulum be formed in, or extend to, the common iliac vein, the obstruction produced may give rise to all the symptoms of *phlegmasia dolens*.

8thly. That, under any of the circumstances above mentioned, bleeding and the use of mercurial medicines are of at least doubtful efficacy.

The evidence upon which these propositions are established it is unnecessary to recapitulate. It will rather be my object at present to review some of the labours of physiologists in connection with this subject, and to endeavour, by the assistance of the information derived from the action of foreign substances on the blood, to reconcile the discordant evidence which is found in their writings.

The direct action of foreign matter upon the blood opens an extensive and hitherto comparatively unexplored field of observation to the physiologist; while the admission of diseased secretions into the circulation affords an equally extensive and interesting sphere of study to the pathologist.

The direct effects of extraneous matters, when introduced into the circulation, may be divided into four principal classes, namely:—

I. Those which are occasioned by simple irritation as the foreign substance passes through the vessels.

II. Those which result from the particles of the matter introduced being of such a size, as to pass with difficulty through the small tubes, in which they consequently become entangled.

III. Those which are the result of the coagulation of the blood, determined by the presence of foreign matter.

IV. Those which depend upon a disposition communicated to the blood, to separate into its different parts, or to decompose.

I. Dr. Hales has left us the following experiment. He introduced a tube into the aorta of a living animal, and filled it with a column of water, which by its pressure would inject all the branches with a force supposed to be equal to that of the heart. He then cut a knuckle of intestine, so as to divide the small branches in the length of the intestine, on its free margin. The water from the tube was found to pass from the cut vessels in forty-six seconds, while, under the same circumstances, brandy took sixty-eight seconds before it found its way through the divided vessels. On a second trial, the brandy took seventy-two seconds in its transit.

By the same mode of experimenting, Dr. Hales found that warm water, of the temperature of the animal, passed much quicker than cold water from the pump. He thence concluded, that the contents of the vessels are capable of exciting them so as to contract their calibre, and to diminish the velocity with which fluids are circulated. Mechanical irritation may likewise, as proved by microscopical observation, cause the capillaries of a part to contract, so as to impede the flow of blood through them.

II. In the Museum of St. George's Hospital are preserved different portions of the femoral vein of a man, who was admitted into the hospital in consequence of a severe attack of erysipelas, which produced

several abscesses in the leg and thigh. "The femoral vein is filled with coagula of blood which had manifestly formed before death; and in some parts of the centre of the coagulum, there was found a light semi-fluid substance somewhat resembling pus, but which appeared to be only the dissolution of the coagulum."

It is evident, in such a case, that, whatever may have been the nature of the semi-fluid substance, it was retained in its position by the coagula which surrounded it; and had these been removed, it would then have had free access to the circulation. It is also more than probable that the particles, of which it was composed, were much larger than the blood corpuscles, and would consequently have met with a mechanical obstruction, had they been conveyed in the course of the circulation.

The following case illustrates the circumstance before insisted upon, viz.: the ready access that such vitiated fluids may have to the circulating system, when the coagulating power of the blood has, by disease or other causes, been impaired.

Case xli.[1] Wm. Stubbs, æt. 30, of a swarthy complexion and emaciated appearance, was admitted into St. George's Hospital, Dec. 25, 1844. A year previously he had suffered from pain in the head and nausea. Three months before his admission, the pain in the head had become very severe, and was accompanied by frequent rigors, occasional vomiting, pain in the epigastrium, and region of the heart. The throbbing pain in the head was occasionally so severe, that he would frequently say that "all the disease was in the head".

He continued in the same state, with occasional rigors, till the 31st, when he vomited incessantly.

A soft pulpy tumor on the neck now attracted attention, which he said had existed since the beginning of October, when the previous symptoms had become so much aggravated. It was of the size of a small walnut, situated immediately over the carotid artery; pulsating, but not expanding with impulse.

He sank into the semi-comatose state, and died January 9th 1845.

This tumor,[2] upon examination, was found to be a small, perfectly circumscribed abscess, bounded on all sides by condensed cellular tissue. It contained a darkish coloured pus, and corresponded to the middle of the jugular vein. The cavity of the abscess here communicated with the vein by an opening of the size of a pea, and a probe could be passed through the opening into the cavity of the vessel. When first examined, the opening was partly blocked up by a thin coagulum. The internal coat of the vein presented its usual smooth and polished surface, and was but slightly discoloured, except in the neighbourhood of the opening. Here it was somewhat injected, and presented some yellow spots, apparently of pus, on the surface of the inner membrane. The outer covering of the vein was in this situation thickened and partially destroyed; the vein itself contained no blood.

A very small loose clot, presenting anything but the appearance of

[1] The Cases and Experiments are numbered in continuation of those related in my papers published in the London Journal of Medicine for March and July 1850.

[2] The *post-mortem* examination was conducted by Mr. P. Hewett.

blood, was found in the right auricle. It was of a brown rusty colour, mixed with streaks of a yellow hue. Examined by the microscope by Dr. Bence Jones, it was found to contain a remarkably small quantity of blood globules; but there existed a great number of large granular cells, the microscopic characters of which did not identify their nature.

It is remarkable in this case, that, although the contents of the abscess must from time to time have partially emptied themselves into the vein, yet, not being detained in it, they had excited little or no irritation.

The mode in which purulent fluid, when mixed with circulating blood, becomes altered in its characters, also deserves attention.

The coagulating power of the blood had evidently in this case been greatly impaired; and this circumstance can alone account for the ready admission which the pus gained to the circulation. On the other hand, how completely a coagulum will circumscribe purulent matter before the blood has lost its coagulating power, is illustrated by a case mentioned by Hunter,[1] in which an abscess formed in the substance of the left ventricle of the heart. "The inner wall of the abscess was formed, in this instance, by a solid coagulum of blood of an oval figure. This coagulum was of old standing, from its appearance, and was firmly entangled in the fasciculi of the ventricle."

Experiments illustrating the effects of the introduction of substances into the blood, which have afforded a mechanical impediment to the circulation, have been but too frequently repeated. The following are among those performed by M. Gaspard.

Experiment xxi. Half a drachm of liquid mercury, in half an ounce of common water, was injected into the saphena vein of a middling-sized dog. The animal, at first, experienced no inconvenience from the operation; but six hours afterwards the respiration became embarrassed, accompanied by fever, symptoms of pain in the chest, and disinclination for food. On the third day the animal appeared slightly relieved, and the appetite was returning when he was killed, fifty hours after the injection.

Post-mortem Appearances. Nearly the whole of the mercury was found to have lodged in the lungs, which were inflamed in hardened circumscribed patches, and in some places hepatised. The mercury escaped from the indurated tissue when it was divided.

Experiment xxii. Twenty-two grains of fluid mercury were injected into the jugular vein of a little dog by means of a glass tube. At the expiration of some days, there was a frequent dry cough, with occasional shiverings.

Post-mortem Appearances. The mercury was found, after death, in the lungs, which were inflamed in indurated patches in different parts.

Experiment xxiii. Twenty-two grains of mercury were injected into the jugular vein of a large dog.

Post-mortem Appearances. Four days afterwards, the mercury was found detained in the lungs, in about thirty inflamed spots of induration, varying in size from a pea to a filbert. In some of these suppuration had commenced.

Experiment xxiv. Two drachms of mercury were introduced into the jugular vein of a very large dog. Six hours afterwards, the animal

[1] Pathological Catalogue of Coll. of Surg., vol. ii, p. 4, from M.S. Cat.

refused his food, became feverish, and presented the usual symptoms of inflammation of the lungs; subsequently he appeared better, the appetite returned, and a very frequent cough was the only remaining prominent symptom. On the ninth day, a number of globules appeared in the fecal matter, and continued to pass till the thirteenth day, after which they disappeared. The animal's health was now in some measure restored, when he was killed.

Post-mortem Appearances. The lungs were found much altered by inflammation, adherent to the pleura, and solidified; they contained a great number of indurated tumours, filled with pus and mercury. No mercury was found in the other organs, with the exception of a few grains in the pleura, and in the liver. The stomach and the intestines contained a considerable quantity, but none could be detected in the vessels of those parts; some was, however, met with in the œsophagus, in the trachea, and in the bronchi. These last also contained some *débris* of the pulmonary tissue. The presence of the mercury in the liver is attributed by M. Gaspard, in this case, to its having regurgitated from the right cavity of the heart into the inferior vena cava, and having thence gravitated into the venæ cavæ hepaticæ.

These experiments are in accordance with that of Clayton, who, having injected mercury into the jugular vein, found it again four months afterwards in an abscess in the lung.

From all these cases it appears, that liquid mercury cannot circulate in the living vessels, because it becomes mechanically stopped in the capillary system of the lungs, where it impedes the circulation, and causes inflammation and suppuration. It has been asserted, that the abscesses thus found differ in their characters from secondary abscesses, arising from purulent infection. The difference, however, as we shall hereafter see, arises simply from the fact of a larger number of capillaries being obstructed at once (in consequence of the tendency of the blood to coagulate) in the latter than in the former case.

Experiments Nos. XVI and XVII, before recited,[1] show that where mercury is introduced through one of the branches of the aorta, the terminal vessels are affected in the same way as when it is carried along the pulmonary artery. The first system of capillaries to which the foreign matter is sent, is that in which, and in which alone, in these instances, the inflammatory symptoms are developed.

The same principle may be illustrated with regard to the portal circulation. If fluid mercury is injected into one of the mesenteric veins, it is arrested in its progress in the capillary system of the liver, where each globule of mercury becomes the centre of a small patch of congestion, which terminates in suppuration. In all the cases now mentioned, it certainly does not appear to be the size of the globules which prevents the passage of the fluid through the capillary tubes; for, even in the dead body, these may be perfectly injected with mercury. Another explanation must therefore be sought for, and one presents itself which appears to throw considerable light upon this question. If fluid mercury be agitated with recently drawn blood, it will have little effect in coagulating it *en masse*, but some of

[1] London Journal of Medicine, March 1850, vol. ii, pp. 237-8.

the globules of the mercury become very firmly attached to small portions of fibrine, and the two will be found to adhere very firmly together. In this experiment, the fibrine of the blood is no doubt separated to a certain extent from its other parts (as it would be if beaten with a twig), and adheres to the foreign substance with which it is brought in contact. May we not suppose that something of the same kind takes place in the living vessels,—that, as the globules of mercury are shaken with the blood, the latter parts with some of its fibrine, which adhering to the former, prevents it from being carried forward in the course of circulation?

Impalpable powders, when suspended in water and introduced into the blood, are likewise mechanically arrested by the first capillary system to which they are sent. Oily and viscid fluids, as illustrated in the following experiments, are also unable to pass through the minute tubes of the different organs of the body.

Experiment xxiv. A full half-ounce of chicken's fat, refined and melted, was injected into the jugular vein of a very large dog. The animal was immediately affected with extreme dyspnœa, faintness, and prostration of strength, accompanied by a very slow pulse and inability to stand. An hour afterwards, there were fever, shiverings, symptoms of pain in the chest, and a frequent pulse. These symptoms continued during the second day; and on the third, the animal was enabled to get up and to walk, although with a very unsteady motion. On the second day, the excrements were soft, yellow, pultaceous, and oily; similar evacuations also occurred on the fourth day, after which they were not observed. On the sixth day, the animal was convalescent.

Experiment xxv. Some mercurial ointment was injected two days afterwards into the opposite jugular vein of the same dog; the quantity employed was about a fourth part of that used in the last experiment. There was immediate prostration of strength; the body was rendered immoveable, and the pulse was reduced to twenty-four beats in the minute. The respiration became very slow and short. An hour afterwards, the pulse rose to thirty, and the respiration became more free. Extreme dyspnœa, however, followed, and the animal died an hour and a half after the injection of the ointment.

Post-mortem Apprearances. The lungs were found inflamed and hepatised from the former experiment. The branches of the pulmonary artery were obstructed with a dark concrete fibrous and elastic clot. This had moulded itself to the branches of the pulmonary artery, and followed its ramifications.

Experiment xxvi. Three drachms of olive oil, warmed, were injected into the jugular vein of a fox. As in the former experiments, there was complete loss of power; the respiration was interfered with, and the pulse faltered. The animal died at the expiration of twenty minutes.

Post-mortem Appearances. The body was examined four hours afterwards. Some bloody fluid was contained in the bronchi; the venous system, the right cavities of the heart, and the lungs, were greatly gorged with blood. The pulmonary tissue, for the most part, no longer crepitated upon pressure, and portions of it sank when

placed in water. Some drops of oil could be distinguished exuding from its structure, which left an oily feeling upon the fingers.

A considerable difference of opinion appears to have existed respecting the effect of the introduction of milk into the veins. Hunter found that the injection of milk into the veins of a dog proved fatal; while M. Gaspard affirms that as much as six drachms may be made to pass into the circulation, without in any way interfering with the animal functions. In trying the effect of milk upon recently-drawn blood, I find that, if the milk is fresh, it tends to retard the coagulation of the blood; but if it is sour, it promotes it in a very marked degree. It is not improbable, that this circumstance may account for the different effects which have been observed by different physiologists upon this point, and may reconcile the discordant evidence which they have left us.

Experiment xxvii. A grain and a half of corrosive sublimate, dissolved in water, were injected into the veins of a middling-sized bitch. This was followed by a kind of dysentery, and vomiting of sanious jelly-like matter. From time to time, there was great increase in the secretion of saliva; symptoms of inflammation of the lungs supervened, and death occurred three days afterwards.

Post-mortem Appearances. On opening the body, the rectum was found much inflamed, the liver dark-coloured, and the gall-bladder full of thick viscid black bile. The lungs were studded with a number of little abscesses, separated from each other by nearly healthy pulmonary tissue.

Experiment xxviii. A grain of corrosive sublimate introduced into the jugular vein was soon followed by increased secretion of saliva, dyspnœa, and symptoms of inflammation of the lungs. Death occurred on the fourth day.

Post-mortem Appearances. Scattered through the lungs were found very dark tumours, varying in size from a pea to a filbert. Some of these were inflamed, some had suppurated, while others were gangrenous. The liver was dark, and soft in structure; the gall-bladder full of black, thick, and viscid bile.

In repeating this experiment with five grains of the salt, dissolved in an ounce and of half a distilled water, the animal died in a few seconds.

In these last experiments, we find that the foreign matter is not confined in its influence to the first system of capillaries to which it is conveyed. There is a disposition manifested to expend its morbid action on the liver and the mucous membrane of the intestines—a disposition which we shall find still farther developed in the fourth class of cases above mentioned.

(To be continued.)

ON THE PATHOLOGY AND TREATMENT OF PUERPERAL INSANITY:

ESPECIALLY IN REFERENCE TO ITS RELATION TO ANÆMIA.

By F. W. MACKENZIE, M.D., Physician to the Paddington Free Dispensary for the Diseases of Women and Children, Fellow of University College, etc.

THE pathology of Puerperal Insanity, and its relation to morbid conditions of the organism, are still involved in much obscurity, notwithstanding all that has been written upon the subject. Indeed, on referring to the writings of the most eminent obstetricians, it will be found that much diversity of opinion prevails in regard to it; and it would be as difficult to deduce from them a satisfactory theory of the disease, as a sound and efficient system of treatment. It must, however, be admitted, that many difficulties present themselves in the investigation of the subject, independently of such as are of a metaphysical nature. In many cases, the advent of the disease is so sudden, and its effects upon the sensorial functions so marked, that the patient is rapidly bereft of reason, and with it, of the power of expressing her feelings, or the causes which may have led to the attack. It frequently happens, that the obstetric attendant is called upon to attend his parturient patient without any knowledge of her previous state of health or predisposition to disease, and thus is unable to appreciate the circumstances, which may have remotely and principally led to the attack. Lastly, in regard to the malady in question, it is admitted that any individual experience must be limited, and therefore not such as to justify very sweeping conclusions, either as to its origin, pathology, or treatment.

From these and other causes which might be mentioned, there is often much difficulty in arriving at correct views respecting the nature of this disease, and the writings of even acknowledged authorities contain very contradictory doctrines in regard to it. It has been attributed, for instance, "to the suppression of the lochia"; to a "metastasis of the milk"; to a "peculiar condition of the sexual system which occurs after delivery"; to "local irritation of the mammæ, uterus, and other parts"; to the "disturbances of the vascular system occasioned by delivery"; to the "combined effects of irritation and loss of blood"; to "nervous irritability and excitement", etc. These circumstances, however, would appear to give a too partial explanation of its origin; for whilst they are almost constant and universal in their operation, the disease in question is admitted to be comparatively rare.

On the other hand, that some special predisposition must exist in those who are attacked by it, is, I think, sufficiently certain from a variety of circumstances. Its occurrence, as has been stated, is comparatively rare. The causes which ordinarily induce it, will, in many instances, fail to do so; and it is often met with, without the intervention of any applicable exciting causes. Now the circumstances in which this predisposition originates, would appear to have been but little attended to. Hereditary tendencies and a highly nervous temperament have been recognised as the most important; and most writers agree in connecting it with an adynamic state of the constitution. This view was

especially enforced by Dr. Gooch, to whom we are indebted for a most philosophical essay upon the subject, and who may be said to have been the first to delineate clearly the real character of the disease; but we have still to be informed of the causes of this adynamia. Where hæmorrhage has occurred subsequently to labour, or blood-letting has been practised, as also where long-continued suckling has preceded the attack, the causes of it are sufficiently obvious; but it is met with in many instances irrespectively of these, and, indeed, in the absence of any exciting cause whatever. To what then is it attributable? I have made many inquiries on the subject, and they lead me to believe that in these, and indeed in the majority of cases in which puerperal insanity occurs, it is mainly dependent upon the existence of anæmia antecedently to labour. In every case which I have attended, such an inference has been clearly deducible from the history; and on looking to the published cases of others, this opinion is supported, if not confirmed. I propose, therefore, to draw attention to this point in the present paper, and to inquire how far such an opinion is verifiable, and in accordance with well-ascertained facts.

It is unquestionably a fact, that anæmia, in various degrees, prevails very generally amongst females, and that its existence is often unrecognised both by the patient and her friends; whilst, at the same time, its influence is very considerable in modifying and predisposing to various secondary diseases. The great susceptibility of the nervous system in females generally, both consequent upon, and independently of, impregnation and its results, is well known; but its connexion with certain conditions of the blood does not appear to have been as fully appreciated. It has been observed, for instance, that the nervous system of the female in health is far more irritable and susceptible to impression than that of the male; but it is also the case, that the healthy constitution of the blood of the former differs materially from that of the latter, and that, with a slight exception in favour of albumen, the blood of the female contains a smaller proportion of nutritive and vivifying elements than that of the male.[1]

The avocations of females in many instances, their education and modes of life, more especially of those of the upper classes of society, doubtless tend still further to diminish this proportion, and to produce a correspondingly more irritable condition of the nervous system, as well as a greater susceptibility to the operation of disturbing causes. Anæmia, however, when slowly induced, and existing even in an extreme degree, is not incompatible with a comparatively healthy performance of the bodily functions, and thus may have been of long continuance without attracting any particular notice; but persons so

[1] I subjoin the following table from Dr. Carpenter's Physiology, embodying the general results of the analysis of Denis on this point.

	Male.		Female.	
	Maximum.	Minimum.	Maximum.	Minimum.
Water	805	732	848	753
Albumen....	63	48·5	68	50
Globules....	186	110·5	167	71·4
Fibrin	4	2	3·1	2

suffering readily succumb to morbid influences; they are unequal to much fatigue, possess, for the most part, but little energy, and are often incapable of performing their allotted and ordinary duties. Should impregnation take place under these circumstances, the blood becomes still further impoverished, and the constitutional powers heavily taxed in the performance of the functions necessary for the purpose of "forming, lodging, expelling, and feeding the offspring." If secondary disease has hitherto been averted, there is now a greater probability of its supervening, and hence, during utero-gestation, various functional disorders are liable to occur. The brain and nervous system in particular become unduly excitable, and, in some cases, incapable of withstanding the shock and the consequences of labour. Hence it is, that intense cerebral disturbance, consequent upon great nervous irritability, is so liable to occur under such circumstances, with or without the supervention of some casual exciting cause.

On reviewing the symptoms which ordinarily characterise an attack of puerperal insanity, we see nothing that is inconsistent with the view which has been expressed. The progress and termination of the malady do not militate against it, nor do the *post-mortem* appearances in such cases as have terminated fatally. I shall briefly refer to each of these points, as elucidating the pathology of the disease; and commence with the symptoms, which I shall cursorily describe as they have presented themselves to me in practice.

Symptoms. When mania occurs during the puerperal state, its accession is in some instances sudden, as where some violent mental emotion has been the exciting cause; but more frequently it is otherwise, and it is ushered in by certain premonitory symptoms. Of these, one of the most frequent is restlessness or sleeplessness at night, a symptom which almost invariably precedes the full development of the disease. The patient at the same time is often excitable during the day, and evinces some peculiarity or other. She may express herself as feeling unusually happy, or otherwise; there may be a degree of vivacity about her which is unaccustomed; or, on the other hand, she may be excessively reserved. One patient will be constantly talking, while another will be sullen and taciturn, and there is often some strange fancy or idea upon which she more particularly dwells. The pulse at this time is generally quick; but it is weak and easy of compression, and although the head may be hot and the countenance flushed, the extremities, and especially the feet and hands, are either cold or below the average temperature. Up to this period, the patient appears to be rather eccentric than mad; she is easily managed, and readily does what she is advised; but after a time she becomes more positive, more impatient of contradiction, and at length violent and unruly. Her nights are now passed without any sleep, her countenance is flushed and excited, her head hot, and her eyes suffused. The tongue is mostly furred and dry, but it may be clean or covered with a slimy mucus; the breath is often offensive, more especially in the morning; the bowels are torpid, the stools unhealthy, and the urine scanty. With the development of these symptoms the delirium rapidly increases, and the case, so far as the cerebral disorder is concerned, presents very little difference from that of ordinary mania. The state of the circu-

lation is, however, still peculiar; the pulse continues weak, though quick; the extremities are cold and clammy; the inner lips are pallid; and the patient, unless under the excitement of delirium, appears to suffer from extreme prostration.

These symptoms, it will be observed, do not materially differ from the cerebral disorders which are sometimes met with in anæmiated persons, when causes of sufficient intensity disturb the sensorial functions; and although such cases must have occurred in the experience of most practitioners, I will briefly quote the following in illustration.

Case. On the 23rd of November 1843, I visited Elizabeth Waugh, a girl aged 14, who, shortly after receiving a fright, had exhibited symptoms of excitement and cerebral disturbance. She had been delirious for some days before I saw her, and had been under the care of a practitioner, who, in consequence of the heat of head, flushing of the face, quick pulse, and the delirious state of the patient, had treated the case as one of mild phrenitis. The head had been shaved, cold lotions applied, and purgatives and antimonials administered. Under this treatment, however, the symptoms rather increased than lessened in severity; and on visiting her, I found her suffering from many of those which I have mentioned as occurring in puerperal mania. The pulse indeed was quick, but very weak; the head was hot, but the extremities were cold; the face was flushed, but the inner lips were pallid, and there was evidently much physical prostration, whatever might be the nature of the cerebral disorder. These circumstances, together with the effect of the past treatment, led me to consider whether the case might not be one of irritation rather than of inflammation, and her previous history left no doubt on my mind as to its being so. She had been a remarkably weakly, ailing child from infancy; had lost her father and mother at an early age, and at one time had been so destitute, and so little provided for, that she had been placed temporarily in an asylum by a clergyman; she had left this some months before the present attack commenced, but it was observed by those who had the charge of her, that she had been, previously to leaving, very weak and pale, and incapable of undergoing fatigue. With this history, looking to the patient's general symptoms, and discovering a loud venous bruit in the neck, I did not hesitate to order a nutritious diet, and a moderate allowance of wine. The bowels were attended to, and the medicine specially prescribed was the carbonate of iron in rather full doses. Upon this treatment, in a week, she was much better; by the 7th of December she was convalescent; and on the 23rd I left her, not only cured of the cerebral affection, but much better in health than she had been for some time.

This case was in no respect dissimilar to those which I have seen of puerperal mania; in the latter, there has always been great cerebral excitement conjoined with much physical exhaustion, and for this there is often no sufficient cause to be found, either in the labour itself, or the circumstances which have followed it. If, however, the history of such cases be carefully investigated, the practitioner will generally find that anæmia, often in a marked form, had existed antecedently to labour.

The progress and termination of the puerperal attack vary in different cases. It may terminate in spontaneous recovery, a result

which will be hastened by judicious treatment. It may be followed by protracted insanity of many months or years duration; and in some instances it has terminated fatally. When such has been the case, the *post-mortem* appearances have been generally of a negative character as regards the existence of any active cerebral disease. Dr. Copland observes, "that those caused by pure or true puerperal insanity, particularly where it occurs soon after delivery, or during suckling, consist chiefly of deficiency of blood in the brain and its membranes; and in some instances, of slight effusions of serum between the membranes and in the ventricles. There are no signs of inflammation, or even of congestion, excepting in such cases as have approached in their character to phrenitis, on the one hand, or to nervous fever on the other. The pure cases of the malady present little beside anæmia of the brain and its membranes, and of the system generally."[1]

Dr. Gooch observed the following appearances in a case which terminated fatally. "The veins throughout the body were remarkably empty; the heart contained little blood; the lungs and liver were singularly pale; within the head there was the same deficiency of blood in the veins of the pia mater and in the sinuses; under the arachnoid there was a little serum; and, on slicing off the hemisphere, the bloody points were unusually numerous." Such appearances are probably those which would be met with in recent cases; but where the attack has been protracted or has merged into settled insanity, various organic changes will doubtless be found; indeed, the statistics of lunatic asylums show, that almost every form of organic lesion has been met with in the brain and its membranes in such protracted cases. These, however, are probably the consequence of secondary disease, or of the long continuance of great functional disorder.

But neither a fatal termination, nor evidence of congestion of the brain, with more or less serous effusion into the ventricles, or between the membranes after death, would render the opinion which has been expressed as to the origin of the disease either improbable or incorrect. Simple cases of anæmia, uncomplicated with the circumstances of the puerperal state, have terminated fatally after symptoms of great mental and cerebral excitement, and appearances similar to those stated have been found after death, when there was no evidence of the existence of inflammation during life.

Dr. C. J. B. Williams observes; "I have met with several cases more or less corresponding with the following description. A young female becomes anæmic, and after exhibiting various symptoms of feeble general circulation, with headache, drowsiness, and impaired sensorial functions, suddenly becomes worse; passes into a state of stupor, with dilated pupils, sometimes varied by slight *manifestations of delirium*, throbbing of the carotids, and partial heat of the head, and dies comatose.

"On opening the head, a small quantity of serum is found under the arachnoid, and in the ventricles, sometimes with a little lymph (in one case there was none). The vascularity of the membranes is remarkable; but the vessels most distended are the veins; and in the larger of these, and in the longitudinal sinus there is a firm coagulum. In

[1] Copland in Dictionary of Practical Medicine, Part vii, p. 547.

parts, especially at the torcular Herophili, this coagulum blocks the whole sinus, and exhibits a separation of fibrine; portions of which are softened down into that opaque purilaginous matter, which was long mistaken for pus, but which Mr. Gulliver has shown to be a mere disintegration of the fibrin, which mere stagnation, in a warm temperature, may effect. These have been taken for cases of meningitis. No doubt, inflammation may supervene in them occasionally; but in two cases, which have fallen under my notice, there was no adhesion of the arachnoid, nor deposit upon it, nor any other unequivocal mark of inflammatory action. Yet the fibrinous and bloody concretions in the veins and sinuses were most remarkable for their size and firmness. It appears to me most probable that these affections originate in the encephalic congestion connected with anæmia".[1]

In the foregoing description of the symptoms, I have not attempted to delineate the disease in all its several phases, or to indicate more than, very generally, its leading features and symptoms as I have most frequently met with it in practice. To enter into such details would answer no useful purpose, for in no two instances would the same train of symptoms be observed. It will present differences in individual cases according to the general state of the patient, the causes which have immediately excited it, and the temperament and peculiarities of the patient. In some instances the insanity will be attended with despondency, in others with hilarity, and it may vary from a mere hallucination upon a single point, to the most complete perversion of all thought and reason.

Pathology. A far more important question is involved in the consideration of the nature and pathology of the disease, and the determination of the physical condition upon which it principally depends. I have expressed the opinion that its origin is intimately connected with a defective condition of the blood; and this view, which has been suggested by the cases which I have attended, is strengthened by the histories of those which have been published by others. I would particularly refer to the paper of Dr. Gooch, on the "Disorders of the Mind in Lying-in Women"; in corroboration, to the cases which he has reported, and the inferences which he has drawn from them. After giving a careful history of them in detail, he adds a summary of them in the following words:—"What inferences are we to draw from the foregoing cases relative to the question, for the solution of which I have related them; viz., what is the morbid condition of organisation on which puerperal insanity depends? Let the reader reflect on the leading point in these cases. In No. 1 the disease occurred in a *pale lady, without any heat of skin,* or much quickness of pulse, and was not relieved by the loss of blood. In No. 3 it occurred in one whose constitution *was drained and enfeebled by nursing.* In No. 4 it occurred in a *pale* woman, habitually hysterical, subject to bear dead children *from want of power to afford them life* for nine months. In No. 5 it occurred in one who had *been drained by flooding.* In No. 6, in one whom, for urgent reasons, the *circulation had been reduced to the lowest ebb consistent with life.* In No. 7, in one who had been *living very low for a week,* with such marked symptoms of the irritation of debility,

[1] Williams (C. J. B., M.D.) Principles of Medicine. Second Edition, pp. 167-8.

that at first sight I thought it was the close of some disease that had been overlooked. It was speedily relieved; not by cupping and purging, but by the tranquillizing and sustaining power of opium. In No. 8 the disease was treated, though with all possible prudence and moderation, as an inflammatory state of the brain, by leeches, cupping, purging, and low diet, yet the patient died; not with symptoms of oppressed brain, but with those of exhaustion; and on examining the body, the whole venous system was found *extraordinarily empty of blood*. In No. 10 the patient fell, as if shot, under the stroke of the lancet; and, on examining the head, there was found no effusion, and *empty blood-vessels*. In No. 11 the disease came on after puerperal convulsions; a disease generally, but not always, depending on cerebral congestion; and after *one of those enormous bleedings*, commonly practised in these cases, and no morbid appearances were discovered after death in the brain".

Dr. Gooch then observes: "These cases, if fair specimens of puerperal insanity, lead straight to the conclusion, that the disease is not one of congestion or inflammation, but one of excitement without power".[1] Of the correctness of this conclusion there cannot, I apprehend, be a doubt. As far as it goes, it expresses fully the fact, but it leaves the principal difficulty unexplained. It fails to inform us of the circumstances upon which this excitement without power depends, and thus to enlighten us upon the real nature of the disease. It is clear, however, that another conclusion may be drawn from these cases. In all, the patients were more or less anæmiated prior to the attack. In some, this had followed hæmorrhage or blood-letting, but in others it was irrespective of either, and had probably existed long antecedently to labour.

The cases more recently reported by Drs. McClintock and Hardy, in their valuable work on *Midwifery and the Diseases incident to the Puerperal State*, are of the same general character, and justify a similar conclusion. The cases published by them amount altogether to six; of these, the attack followed blood-letting in four; in one it occurred in a person who had been living in a state of extreme destitution previously to her labour; and in the sixth it followed diarrhœa. In the following summary the principal facts of these cases are stated, so far as they bear upon the question under consideration.

In No. 1, the patient went on well until the fifth day after her labour, when she was bled on account of cough; on the sixth day the bleeding was repeated, and at nine o'clock, P.M., of the same day, she awoke screaming, and quite maniacal. The cerebral excitement was tranquillized by tartar emetic; but she subsequently became so weak and low that stimulants were necessary. After this she was attacked with erysipelas on the side of the head and face, and eventually died. A post-mortem examination revealed vascularity of the arachnoid, and about an ounce and a half of serum at the base of the brain. In No. 2, it occurred after bleeding for pain in the uterine region. The attack commenced on the evening of the same day of the bleeding; but it readily yielded to tartar emetic treatment. In No. 3, the patient fainted twice during labour. On the third day she was bled. This occasioned

[1] Gooch, Dr. Diseases Peculiar to Women, Second Edition, pp. 139, 140.

a feeling of faintness, and was followed by mental disturbance. In No. 4, the patient was bled upon the second day after delivery, mania occurred on the fifth, and on the eighth it was very intense, but it was treated successfully with tartar emetic. In No. 5, the patient was an unfortunate woman who had been abandoned by her husband, and who, when admitted, was in a state of extreme poverty and destitution. In No. 6, the attack followed diarrhœa, for which low diet was ordered; it commenced about five days subsequently; the stomach and bowels were greatly disordered, but the patient eventually did well.

As I have already observed, the general character of these cases does not materially differ from those related by Dr. Gooch. In the fifth case, the patient could not have been otherwise than anæmiated previously to her labour. In the sixth case, the patient was in a state of extreme prostration before the attack commenced; and, judging from the results of bleeding in the four first, it is scarcely likely that any of the patients could have been in ordinary health before the commencement of labour. At all events, mania is not a usual consequence of blood-letting, when properly practised; and when depletion is followed by such a result, it at least justifies this inference, that whatever may have been the symptoms for which it was performed, the patients were more or less anæmiated prior to its performance.

A case is reported by Abercrombie under the head "Meningitis", in his work on the *Diseases of the Brain and Spinal Cord*, so much to the present purpose that I subjoin the following particulars of it. "A lady, aged 38, was recovering from her eleventh accouchement, when, for some local affection, repeated topical bleeding was practised. This, with other remedies, subdued her febrile symptoms; but after three or four weeks she was still confined to her bed, and considerably reduced in strength. At this time, she became one day alarmed and agitated by some family occurrence, and immediately began to talk wildly and incoherently, and, after a restless night, was found next day in a state of the highest excitement, talking incessantly, screaming and struggling, with a wild expression of countenance, and a small rapid pulse. She was treated by topical bleeding, laxatives, cold applications to the head, etc., but with little or no benefit; and on visiting her on the following day I found her sitting up in bed, with a look of extreme wildness; both her hands in constant motion, talking incessantly and wildly; and I learnt that she had not ceased talking for one instant for the last twelve hours. Her pulse was now rapid and feeble, and her countenance expressive of exhaustion. In consultation with a highly intelligent friend, who had charge of the case, I mentioned my experience of the fatal nature of the affection, and proposed to make trial of treatment by stimulants. A glass of wine was accordingly given, with evident abatement of the symptoms, and it was ordered to be repeated every hour. At the end of the fourth hour she was perfectly composed and rational, her pulse about 90, and of good strength, and from this time there was no return of the symptoms".[1] The state of health of this patient, antecedently to labour, is not mentioned; but the fact of her having had ten children previously,

[1] Abercrombie (John, M.D.) Pathological and Practical Researches on Diseases of the Brain and Spinal Cord, pp. 64-65.

would, I think, tend to show that her constitution and blood had been somewhat impaired; for nothing induces anæmia in females more certainly than having children very rapidly, and more especially when all are suckled by the mother. In this case anæmia had probably predisposed to the attack, in conjunction with the local blood-letting; this, however, does not appear to have been carried to any great extent, and, in a person not otherwise anæmiated, would scarcely have produced a state of constitution so favourable to the development of mental disorder.

The cases which have come under my own observation have appeared to be essentially similar to those related, and to have originated remotely, and principally, in a defective condition of the blood. In all, anæmia had existed concurrently with the attack, as well as antecedently to it. In one patient, with whose previous history I was well acquainted, it had existed during the greater part of pregnancy, and was probably the sole cause of the mania. In another it was apparent when the patient was suffering from the malady, which disappeared under treatment calculated to improve the general health. But it reappeared some months subsequently, not as the effect of child-bearing or its consequences, but as the result of a return of bad health, and an impoverished state of the blood. Many cases of this form of mania have been admitted, during the last three years, into the Paddington Infirmary, in females who had been suckling their children under circumstances of much privation; in all of them, anæmia existed in a marked manner, and the intensity of the cerebral disorder, as well as the danger, was found to be proportionate to the degree in which the blood had been impoverished. I shall subjoin the particulars of some which I have attended.

Case. The first I shall refer to is instructive, as showing the extreme intolerance of blood-letting in these cases, and is otherwise corroborative of the views which I have expressed. In November 1845, I went to Fulham to see a lady who had become deranged a few days after her confinement; but before I saw her she had been bled rather largely, on account, as her medical attendant stated, of her extreme excitement; *this, however, instead of having been lessened by the bleeding, had been much increased by it.* I found her sitting up in bed, raving incessantly, and she had been so for many hours. Her head was very hot, and her face suffused, but her inner lips were pale, her pulse weak and quick; the feet and hands cool, and the skin moist. No cause could be assigned for the attack. She had an easy labour, and it was neither attended by hæmorrhage nor any thing unusual. She had not experienced any mental shock or uneasiness subsequently; nor did the state of the tongue, or any thing else, indicate gastro-intestinal irritation. It was, however, evident that she was very much anæmiated, and her history clearly showed that anæmia had existed prior to labour. She had a very large family. She had suckled each of her children an unusual period; and the constant strain upon her constitution, induced by pregnancy and lactation, had evidently given rise to this insufficiency of blood. Sustaining and tranquillizing treatment was recommended; but the case was considered by her husband and friends to be so bad, that she was shortly removed to an asylum. I visited her there some weeks afterwards, but she was not then materially

better, and many months elapsed before she was deemed sufficiently convalescent to return to her family. I cannot doubt that this protracted convalescence was mainly attributable to blood-letting after the accession of the maniacal symptoms.

Case. In another case, the patient was attended by myself in labour, in Dec. 1843. This took place prematurely, and the child was still-born. No hæmorrhage occurred subsequently, or anything unusual, nor had she experienced any shock or mental emotion; and for a few days she appeared to be doing as well as it was possible. I had never attended her before this labour, and I knew nothing of her previous state of health; but she did not appear to be strong. She was pale and emaciated; and the labour appeared to have taken place prematurely as the result of bad health. Four days after her confinement she became delirious; and I found her talking very incoherently, and impressed with the idea that people were about her, endeavouring to destroy her. She had a wild unsettled look; her countenance was flushed, and her eyes suffused; her pulse was small and quick, and her extremities cool. No cause could be assigned for the attack, either mental or otherwise. Her tongue was clean, and her bowels had been regularly relieved.

The immediate treatment consisted in giving sixty drops of the tincture of henbane, applying ice to the head, and occasionally administering light nourishing food. A second dose of henbane was given, two hours after the first; and this procured some sleep, and she awoke more composed. On subsequently inquiring into the history of the case, the following particulars were elicited.

The patient had enjoyed good health, until five years previously. She then lost her mother; and, in consequence, suffered much mental distress and excitement. Nervous symptoms came on, which were supposed to arise from brain-fever; and she was in consequence very much lowered, and had a considerable quantity of blood abstracted. This treatment gave rise to increased nervous excitement, and also to mental derangement, which continued for some months; and ever since, she had been nervous and excitable. Such a history clearly pointed to the existence of anæmia, as a consequence of the lowering treatment and depletion; and I found, on examination, the indications of it in a decided form. There was a loud bruit over the veins of the neck; the inner surface of the lips was pale, as was also that of the eyelids; the pulse was weak, and her whole appearance indicated great deficiency of blood. The treatment adopted had reference to this, and to tranquillizing the nervous system. A nutritive diet was enjoined, with the moderate exhibition of steel, and occasional aperients: sedatives were given at bedtime, when restless or indisposed for sleep. Her general health improved; and in a fortnight she was convalescent.

A twelvemonth subsequently to this, I had again to see this patient, in consequence of symptoms of returning insanity; and I found her labouring under marked delusions. She was not now pregnant, neither had she been suckling; nor had any cause connected with child-bearing been in operation: nevertheless, it was evident that her intellect was disordered. She entertained strange and unfounded apprehensions, had sleepless nights, and many of the symptoms which had

characterised her previous attack of puerperal insanity. The only explanation which could be found for this, was the state of her general health, which had again become impaired. There was evidently anæmia, and with it a disordered condition of the stomach and digestive organs. These circumstances alone appeared to have given rise to the present attack; and it speedily disappeared on correcting them. Two years subsequently to this, she gave birth to a fine healthy child, which she suckled for some time, without any return of mental disorder.

For some years after this, she continued in the enjoyment of excellent health, mainly by taking great care, regular exercise, and attending rigidly to diet and regimen. Only six weeks ago, however, I was again consulted by her, on account of weakness and nervous symptoms. She passed sleepless nights, and had various odd and unnatural feelings. These I found to have been preceded, and to be attended, by anæmia and disorder of the stomach and bowels. She was speedily cured by measures suitable to these conditions.

We have, in this case, an instance of mental derangement occurring four times in one individual; and in each, chiefly as the consequence of anæmia. The first attack followed copious blood-letting and lowering treatment for nervous symptoms, which, although occasionally, do not invariably depend upon phrenitis. From this cause, she would appear to have been anæmiated at the time of her first confinement; and mania followed as the consequence of the shock of labour in a person so predisposed. In the two last attacks, the existence of anæmia was most marked, and had probably predisposed to them, whilst gastro-intestinal derangement was their immediate exciting cause.

In the following case, the point contended for was better established, inasmuch as the patient had been under my care for some time previously to labour; and the connexion between the anæmia antecedently, and puerperal mania subsequently to it, was clearly shewn.

Case. The patient was a young lady whom I had attended prior to her marriage, and whose illness then was principally dependent upon anæmia and gastro-intestinal derangement. She recovered from this, and shortly afterwards married. This event was soon followed by pregnancy; and, during gestation, the symptoms of anæmia returned in a severe form. Her feeling of prostration at times was excessive. She often fainted on assuming the erect position; became breathless on the least exertion; and palpitation of the heart was readily induced. Her face and lips were extremely pallid; her feet and hands were for the most part cold; and a loud continuous murmur was heard over the jugular veins. So severe were these symptoms towards the end of pregnancy, that it more than once became a question, as to whether premature labour ought not to be induced. By great care, however, by the frequent administration of nourishment to the extent that her digestive powers would permit, and by the use of steel tonics, she was enabled to reach the full period of gestation. Her labour was natural; and she was delivered of a fine boy, without any particular loss of blood, or any unusual circumstance occurring. Everything went on favourably for about five days, when she appeared to be somewhat odd in her manner. From being naturally reserved, she became exceedingly

talkative; her countenance excited; and she represented herself as feeling extraordinarily happy. Her nights had been more or less sleepless; and this sleeplessness now increased. Her mind became more and more disordered; and at length she was perfectly delirious. At the commencement of her attack, morphia was given largely; but it failed to do any good. The tartrate of antimony was then had recourse to; but it proved equally inefficacious. These remedies were therefore discontinued; and it was determined that the treatment should be solely addressed to the patient's general health, and more particularly the improvement of her blood. With this view, she was at once removed from town to a more healthy and open situation. Her apartment was kept freely ventilated; and she was supplied frequently with light unstimulating food. The drain upon her system, occasioned by lactation, was checked by the application of ice and cold evaporating lotions to the mammæ. The utmost tranquillity was maintained; and all sources of excitement, such as interviews with her husband and relatives, were interdicted. Under this treatment, and with the aid of very little medicine, her health soon began to improve, as did also the condition of the blood. As this took place, she slept at night without the aid of narcotics, and her mind became rational. In the course of three weeks she was perfectly convalescent, and has continued well ever since. Two years ago she was again confined, gave birth to a fine healthy child, and recovered without the return of an unfavourable symptom.

I might add other cases of a similar nature, justifying the same conclusion, if the limits of this paper would permit; but I forbear doing so, because it appears to me that sufficient has been said to show that there is a connexion between the existence of anæmia antecedently to labour, and the occurrence of mania subsequently, and that this connexion is more than casual. It has been said that puerperal insanity will occur under very different circumstances; and that stout persons, as well as those who are spare, are equally obnoxious to it. It must be remembered, however, that a stout adipose subject is not necessarily a healthy one; and that in such the blood may be, and constantly is, either impoverished or scanty. The existence of anæmia cannot be determined by the conformation of the patient. It is rather to be sought for in the pallid complexion, the paleness of the inner surface of the lips, and of the palpebral conjunctivæ; in the frequent palpitation of the heart, the breathlessness on exertion, the abnormal murmurs heard over the heart and jugular veins, the feebleness of the pulse, and the general coldness of the feet and hands: with these symptoms, there is often languor and lassitude, and general feebleness of the bodily functions. These are the surest indications of the presence of anæmia; and when they are sufficiently attended to, it will often be found to exist where otherwise it might never have been suspected.

That this condition of the blood should favour the occurrence of puerperal insanity, would appear to be highly probable, from a variety of circumstances. In the first place, it is obvious that for the healthy performance of the functions of the brain, as of other organs, it is necessary that there should be a due supply of healthy arterial blood; and that this supply cannot be greatly diminished in quantity, or de-

terioriated in quality, without producing disorder, or a great susceptibility to it. "That the brain is an organ receiving a very great supply of blood; that its vessels are large and numerous; that an increased determination of blood to it, or, on the contrary, a diminution of the quantity conveyed to it, must have an effect upon the cerebral functions; and that the perfect or imperfect state of the intellectual and nervous powers is intimately dependent upon the condition of the circulation within the head, are facts of which no doubt can be entertained.[1] Hence, amongst the frequent consequences of anæmia, may be mentioned an extremely irritable condition of the brain and nervous system. In some cases, this amounts to actual disorder; in others, to a susceptibility, which only requires some casual circumstance to develope into positive disease. Thus, in puerperal patients, when greatly anæmiated, mania may occur as the result of the mere shock and consequences of labour. But when the blood is less impoverished, additional disturbing causes may be necessary; and those which would produce it in a puerperal patient, are similar to those which would occasion it in the non-puerperal state. Of these, mental agitation, shock, or emotion, loss of blood, and irritations of various organs reflected upon the sensorium, particularly of the stomach, liver, and intestines, are the most potential; and the cerebral disorder induced by these in anæmiated non-puerperal persons, is precisely similar to the mania of the puerperal state.

In the second place, the general symptoms attending puerperal mania, are identical with those which are met with in anæmia. The brain and nervous system, it is true, are in a state of extreme excitement; but the condition of the patient generally is one of weakness and exhaustion. The pulse is small and quick; the extremities cold; and the excitement has been truly characterised as "action without power". Moreover, in all the cases which I have seen, loud continuous murmurs were heard over the cervical veins, as well as those cardiac sounds, which are indicative of an attenuated state of the blood.

In the third place, the progress of the disease does not materially differ from various cerebral affections, which are occasionally met with in anæmiated patients; and whilst in each the tendency under favourable circumstances is to recovery, in either the reverse may happen from very similar causes. Thus, in either, congestion of the brain may occur from feebleness or irregularity of the circulation; and, consequent upon this, effusion may take place, leading to a fatal termination. When, again, the malady is protracted, various organic changes may be induced in the brain and its membranes; and these may give rise to permanent insanity, epilepsy, or paralysis.

Treatment. The treatment generally proper for anæmia will be found, upon the whole, to be most appropriate for puerperal insanity. Special indications will require to be fulfilled by special means; and slight forms of the disease will often yield to the unassisted efforts of nature. But when the attack is severe, and resists the natural efforts, as well as specific treatment, it will generally be found that this obstinacy is connected with an aggravated form of anæmia, and

[1] Mason Good. Study of Medicine. Edited by Samuel Cooper. Note by Editor. Vol. iii, p. 61.

that, in proportion as the condition of the blood is improved, will the cerebral disorder disappear.

If the foregoing observations should prove to be correct, and if it should be established as a fact that anæmiated persons are especially predisposed to puerperal insanity, it will follow that the treatment should not only be curative, but preventive. The practitioner, aware of the cases in which there exists a predisposition to the malady, will be forewarned, and prepared to take precautions against its accession. During pregnancy, he will endeavour to improve the condition of the blood and the tone of the nervous system, by attention to diet and regimen, and such auxiliary treatment as may be indicated in particular cases. During labour he will especially endeavour to diminish the shock upon the nervous system, and to prevent or lessen excessive or immoderate hæmorrhage; whilst, during the puerperal period, he will rigidly guard his patient against the influence of those occasional causes, which are known to determine the attack, such as mental alarm, agitation, or emotion, gastric, hepatic, or intestinal irritation, or any organic irritation which is capable of being reflected upon the brain. In short, the indications are twofold; on the one hand, to adopt such measures during pregnancy as are calculated to improve the blood; on the other, to guard the patient, both during and subsequently to labour, against such influences, mental and physical, as have been known to occasion the attack.

The first indication comprises the treatment of anæmia in all its several forms,—a subject which is far too comprehensive and extensive for discussion in the present paper. Its relations, moreover, to uterine and puerperal diseases generally are so important, that I propose to consider it in a separate communication. It should comprehend attention to external circumstances,—habits and modes of life; to the condition of the digestive organs, as well as that of the nervous system generally; to various remote causes of a depressing character, mental and corporeal; and thus should comprise measures both moral and physical, dietetic and medicinal.

The second indication, so far as prevention is concerned, is to protect the patient, both during and subsequently to labour, against the influence of the exciting causes of the malady. These are, for the most part, well ascertained, and comprehend two classes. The first class comprises those which directly operate upon the mind; the second, such irritative disorders of the body, or of particular organs, as are capable of affecting the brain unfavourably, whether by sympathy or otherwise. All painful states of mind should, if possible, be prevented: distress, anxiety, grief, or any emotion, have, in some instances, immediately given rise to an attack of mania; as also have fright, agitation, sudden shock, or alarm. These also should therefore be rigidly guarded against. Of bodily derangements, it may be said, that any "uncommon irritation spreading to the brain", may be the exciting cause; but certain organs sympathise more directly with it than others, and the disorder of these is especially to be attended to. Such irritative disorders may be enumerated in the following order, as regards their frequency, in the causation of the disease: gastric, hepatic, or intestinal, either singly or combined; uterine, and mammary.

The curative treatment of puerperal insanity, should it unfortunately

have occurred, is one of extreme difficulty;—not less so from the nature of the indications to be fulfilled, than from the reluctance of the patient to acquiesce in the necessary measures of treatment. It should comprise attention to at least the following four points:

First. The removal of any exciting causes which may exist, and of any bodily derangement which may have been instrumental in the causation of the disease.

Secondly. The subduction of cerebral excitement, and the restoration of tranquillity to the nervous system generally.

Thirdly. Guarding against the occurrence of congestion, effusion, or other disease of the brain.

Fourthly. Supporting the constitutional powers, restoring the general health, and improving the condition of the blood.

1. The first indication points to the removal of such exciting causes as may have been concerned in the production of the disease. It has been remarked, that these are referrible to two heads: the one operating directly upon the mind; the other consisting, for the most part, of various kinds of irritation in remote parts of the body. When mere emotion has been the exciting cause, and no physical disturbance can be discovered, it is probable that a full opiate, together with extreme quietude, and the constant application of ice to the head, may at once overcome the cerebral excitement, and avert any further bad consequences. It must, however, be remembered that opium is contraindicated, whenever gastro-intestinal irritation exists as a consequence of the presence of crude, unhealthy, or indigested matters in the stomach or intestines. When, therefore, the tongue is furred, the breath unpleasant, the alvine discharges scanty and unhealthy, as also when the abdomen is tumid and uneasy,—evacuant medicines should precede its administration. If gastric disorder exists in a marked manner, there can be no question as to the advantage and safety of giving an emetic, for the purpose of effecting the direct removal of gastric impurities; and ipecacuanha, with squills with or without the tartrate of antimony, according to the strength or debility of the patient, answers well for this purpose. Full vomiting will generally follow its exhibition; and if solid matters, such as undigested food, be not thrown up, there will often be an evacuation of vitiated, unhealthy secretions, in large quantity, which will be productive of much relief. Having premised this step, the next should be to act upon the liver and bowels, not only for the purpose of carrying off irritating matters, but of promoting secretion from them, as well as elimination. Calomel and jalap combined, are extremely efficacious for the purpose, and should be given in full doses; but when they fail, or are otherwise objectionable, I believe that croton-oil, with the watery extract of aloes, and a little Castile soap, will be found of signal service. I have certainly found this to answer well in these cases. It also should be given in decided doses, and repeated every four or six hours, until the necessary evacuations have been obtained. These will generally consist of a number of fœtid and unhealthy stools; and, when they have been voided, the symptoms will often manifestly improve, whilst the further management of the case will be considerably simplified.

11. The second indication refers to the necessity of allaying the inordinate cerebral excitement, and of restoring tranquillity to the ner-

vous system generally. These objects will be best attained, the former by the exhibition of tartar emetic in small and frequently repeated doses; the latter by opium, morphia, henbane, or some other narcotic. The tartrate of antimony may be given to the extent of one-sixth or one-eighth of a grain every half-hour or hour, until the desired effect is produced; and it is sometimes advantageously combined with small doses of the sulphate of magnesia. Any disposition to vomiting may be obviated by the addition of the hydrocyanic acid; and some have found it useful to add a few drops of the tincture, or sedative solution of opium, to each dose.

The administration of opium, in these cases, requires much caution, and careful consideration of the circumstances. Opium, I would observe, has a twofold action upon the economy; and each is distinct and dissimilar. Upon the functions of animal life it operates as a sedative; upon those of organic life, as a stimulant; and thus, whilst on the one hand, it lowers inordinate action of the brain and spinal cord, it tends, on the other, to exalt the activity of the vascular and organic functions. Hence, its efficacy is greatest in those cases in which the sanguiferous system is most depleted, and the vital and organic functions are most depressed; and, conversely, its employment is least proper where there is a tendency to vascular fulness, whether general or local, and more especially of the encephalon. In proportion then as the pulse is rapid and weak; in proportion as organic debility prevails, and there is an absence of cerebral congestion or determination,—is its use indicated in this disease; and, whatever may be the intensity of the mental excitement, in such cases it may be given fearlessly and freely. When, however, these conditions do not exist unequivocally, as will happen in the majority of instances, it must be had recourse to more guardedly, and its action modified according to the particular circumstances of each. "Opiates have been given with two intentions," says Denman; "some have merely proposed to soothe and moderate the violence of the disturbance by the frequent repetition of small or moderate doses; others have aimed, by the more liberal use of opium, often repeated, to suppress the irritability altogether. As far as I can judge, the former method is far preferable to the latter; and I think there can be no doubt but that opiates in larger doses, instead of diminishing, add, in no small degree, to the irritability which before existed."[1] It is certainly impossible for any one to lay down a rule, applicable to all cases, for the administration of opium, or any other narcotic, in this disease. I have found full doses at bedtime, with smaller during the day, to answer well in some instances; and it is sometimes useful to alternate the use of one narcotic with that of another. Tranquillity and sleep are the great desiderata to be attained; and different medicines, and different modes of exhibiting them, will be required in order to attain this end in different cases. It is, however, most necessary to watch the effect of such remedies, and not to push them beyond certain limits, when their efficacy is questionable, merely in deference to popular custom or opinion.

As auxiliary to these measures, the pediluvium, sinapisms to the

[1] Denman. Introduction etc., Seventh Edition, p. 503.

calves of the legs, and revulsives to the extremities, may often be had recourse to with advantage. The use of the pediluvium was especially recommended by Dr. Robert Whytt; and he gives, in illustration of its utility, the following case, which would appear to have been one of puerperal insanity. "A lady, aged about twenty, on the fourth day after being delivered of her first child, began to be feverish, and slept none. After this she became very delirious, talked constantly, had sometimes tremors, and was so restless, that for two days she had not lain one minute in the same posture, and was with difficulty kept in bed by two or three nurses. On the tenth day after her delivery, when I first saw her, the symptoms now mentioned were all increased, only she spoke none, and seemed to understand nothing that was said to her; her pulse, which was but of moderate strength, beat above one hundred and fifty times in a minute,—nay, once, when she was more agitated than usual, it rose to one hundred and eighty strokes in that time, and became withal very small. As she had been blooded, and blistered, and used several other remedies, *without advantage*, I ordered her feet and legs to be put immediately into the warm *pediluvium*, which was done by making her sit up on the bedside. At first it required two people to keep her feet in the water; but in less than a quarter of an hour she grew calmer, and made little motion, either with her legs or any other part of her body. After using the pediluvium for half an hour, she was put to bed, but soon began to grow as restless as formerly; upon which account warm fomentations were applied to her legs and feet, and renewed, from time to time, for near two hours, but without any benefit. I therefore thought it best to renew the pediluvium, which was used, at this time, for a full hour. It soon made her sit quiet; and, after she was put to bed, although she did not sleep, yet she lay several hours without tossing as usual, and her pulse was reduced to 136. As often as she began to be any ways restless, the pediluvium was renewed. After using it the fourth time, she got several short sleeps, was less delirious, and her pulse only made 120 strokes in a minute. From this time (viz., the eleventh day after her delivery), the pediluvium, which was never repeated above twice in twenty-four hours, procured her longer sleeps, and lessened all her bad symptoms; so that, in two days more, she was quite free of the delirium, and her pulse did not exceed ninety in the minute."[1]

III. The next indication to be attended to, is to guard against the occurrence of congestion, effusion, or other disease of the brain. Such consequences might frequently be anticipated from the extreme cerebral disturbance going on; but, under proper treatment, they are fortunately rare. Nevertheless, the possibility of their occurring must not be lost sight of; and every precaution should be taken to avert them. The state of the circulation in these cases generally forbids the employment of active measures: general blood-letting is, for the most part, inadmissible, and hence abstraction of blood should be limited to the application of a few leeches to the temples, or behind the ears, when circumstances render local depletion necessary; but the constant application of ice to the head, the free use of purgatives, a careful diet,

[1] On the Nature, Causes, and Cure of Nervous Disorders, etc., pp. 453-54-55.

and tartar emetic in contrastimulating doses, is safer practice, and will generally obviate all danger on this score.

IV. The last indication points to the necessity of sustaining the patient, restoring her general health, and improving the condition of the blood. These are matters of the utmost importance; and, upon their due fulfilment will her recovery mainly depend. The means to be employed for these objects comprise all those measures of diet and regimen which appertain to the treatment of anæmia. The patient should be placed in a large, cool, and well-ventilated apartment; her diet should be carefully attended to, and this, in the early stages of the disease, should consist of light, unstimulating food, administered regularly and frequently, but in small quantities at a time. While there is much heat of skin, a quick pulse, and great excitement, milk, gruel, arrow-root, and sago, or other farinaceous articles, form the best diet. As the excitement and febrile disturbance subside, a little animal food, or fish, may be added; and, if the extremities should become cold, and the pulse very feeble, wine must be given in addition, and this sometimes largely. In severe cases, it will be necessary to check the drain upon the system occasioned by lactation; and for this purpose, evaporating lotions should be applied to the mammæ, whilst the bowels are kept open by saline aperients. In conjunction with these measures, the patient must be kept perfectly tranquil. All interviews with friends and relatives had better be prevented; conversation should be prohibited; and a regular nurse, accustomed to the care and management of the insane, should be in constant attendance. It is unnecessary to add, that so long as the patient is under the influence of any mental delusion, she must be strictly watched, and every thing kept out of her reach, with which she might do injury to herself or others.

Under this system of management, the progress of the case will generally be satisfactory; and, as the general health improves, the mental aberration will disappear. Should it be otherwise, additional measures for the restoration of the health will be necessary. Change of air will prove serviceable, and recourse may be had to tonics in addition to the regimen laid down. Of these, it would be advisable to commence with the mildest,—such as the mineral acids, or some light bitter; and, afterwards, to prescribe the more powerful,—such as quinine, or some of the preparations of iron.

I conclude, then, by observing, that the relations which subsist between anæmia and puerperal insanity are often of a very intimate nature; and that too much care cannot be paid to the investigation of this point. I do not contend that *all* forms of puerperal mental disorder are dependent upon anæmia; for I believe that they may arise from other causes, and be connected with other states of the blood:—but I maintain that the asthenic forms of the disease are by far the most frequent, and that of these anæmia constitutes an important pathological element. I believe, moreover, that a careful consideration of this point will often enable us to anticipate and avert the attack, or, when it has occurred, suggest the best method of treatment.

Chester Place, Hyde Park Gardens, May 1851.

ON THE HEALTH OF LONDON DURING THE SIX MONTHS TERMINATING MARCH 29, 1851.

By JOHN WEBSTER, M.D., F.R.S., Fellow of the Royal College of Physicians, Consulting Physician to St. George and St. James's Dispensary, etc.

Since my last half-yearly Report on the Health of London, published in the twenty-fourth number of the London Journal of Medicine for December 1850, 27,954 persons have died in the metropolis during the six months extending from September 30, 1850, to March 29, 1851. Throughout the first quarter, embraced in the following report, the health of London has been, unquestionably, more favourable than during the three parallel months of 1849. The total deaths in October, November, and December of 1850 were 12,544; whereas, throughout the same period of the preceding year, they amounted to 12,877; thus making a diminution of 333 in favour of the latter period. With reference, however, to January, February, and March of the current season, the result has proved quite otherwise; as it appears that 15,410 persons died in London during that period, which number, if compared with the 13,219 deaths reported in the similar quarter of last year, gives an increase of 2,191, or 16·57 per cent. This excess of deaths, it seems important to mention, was chiefly confined to the last four weeks of the above period; when the total number of fatal cases recorded amounted to 5,478; whereas, during the parallel period ending March 30, 1850, they only reached to 4,035; thus making an augmentation of 1,443 deaths in the similar four weeks of the current year.

Pursuing the plan adopted in my former reports, I now proceed to offer some general remarks on the principal diseases which exhibited either a diminution, an increase, or an uniform rate of mortality, during the six months comprised in the present communication. From the facts brought forward to illustrate the sanatory condition of our enormous metropolitan population, readers may form their own opinions, altogether irrespective of my conclusions from the same premises.

Diseases which have lately exhibited a Diminished Rate of Mortality. During the last six months, the disease which manifested the most marked diminution in its rate of mortality was cholera, only thirty fatal cases having been recorded, instead of 502 reported during the parallel two quarters of 1849-1850. It is also interesting to mention, that not more than seven examples of this disease were met with in the whole of London during the three first months of the current year.

Diarrhœa and dysentery, like cholera, have also prevailed less violently in London during the past six months, than in the same months of 1849 and 1850. From the first complaint, 539 deaths occurred instead of 689 in the former period; whilst there were only 71 fatal cases of dysentery, in contradistinction to 122, similarly compared.

Measles and scarlatina, likewise, have each exhibited a diminished

rate of mortality. Of the former complaint, only 627 fatal cases have occurred, in lieu of 641 during the parallel period of 1849-50. In scarlatina, although the difference is also inconsiderable, there has still been a diminution; 635 deaths being reported, instead of 685, which occurred during the six months ending March 1850.

Apoplexy and paralysis come also within this category, both maladies having recently proved less fatal than in the former parallel season. From the first named complaint, 646 persons died during the recent six months, instead of 700 reported in the season 1849-50; whilst 560 deaths occurred from paralysis, in place of 623 during the corresponding quarters of the previous year.

Although the total number of persons who lost their lives by violence in London has been greater than in the previously quoted period, some of the casualties are less considerable. For instance, during the six months terminating the 30th March 1850, 727 persons died by violent deaths; whereas, during the six months comprised in the present report, the total number amounted to 833, being an increase of 106, or nearly one-seventh. Of the particular kinds of violence followed by death, fractures constituted the most frequent; then burns and scalds; whilst drowning was also common, of course amongst the river population. In deaths from burns and scalds, however, there has recently been some diminution, 149 individuals having lost their lives in this way, instead of 164 reported during the parallel six months of the previous year. It is also deserving of notice, that during the last quarter, 115, a very large proportion of these fatal cases, occurred in young persons under fifteen years of age. This fact probably indicates, that such accidents chiefly occur in private houses and domestic circles, and not in manufactories or public establishments, where adults are principally employed. At all events, children and young people have been the most frequent victims of burns and scalds.

Diseases which have exhibited an Increased Rate of Mortality. Notwithstanding that the health of London has been satisfactory during the last half year (except in the month of March), several diseases have proved more prevalent than usual. To these I would now briefly direct attention, as being indicative of the unhealthy character of part of the more recent season. Diseases of the organs of respiration have generally become much more fatal during the six months just terminated, than throughout the parallel quarters of the previous year. In the last-named period, the total deaths from diseases belonging to this division, were 4,935; whereas, during the six months ending the 29th of March 1851, they amounted to 5,784,—making an increase of 849 fatal cases, or 17·20 per cent.

On examining the subject more in detail, it appears that bronchitis exhibited greater fatality this year than in the previous; 2,534 deaths having recently occurred from that complaint, instead of 2,089, which were met with during the preceding parallel two quarters. From pneumonia, the deaths during the more recent season amounted to 2,190, instead of 2,000; and, by asthma, 599 persons died, in lieu of 474 reported during the previous period: whilst influenza, which proved fatal to 87 persons in the two quarters ending the 29th of

March 1850, caused death this year in 231 instances,—the largest proportion of such cases having occurred in the month of last March, when that complaint prevailed almost epidemically.

Small-pox has likewise been recently more prevalent than formerly, 466 persons having died of that malady during the last six months, in contradistinction to 194 fatal cases, of the same description, which occurred in the parallel quarters of the previous year. Indeed, variola has prevailed throughout the metropolis more extensively during the last three months, than at any period in the preceding two years. This is shown by the fact, that only 518 persons died from small-pox, in London, during 1849, and not more than 498 in 1850; so that nearly as many individuals have already fallen victims to it, from the 1st of January to the 29th of March in the current year, as throughout the whole of either of the preceding twelve months. This feature of the present season deserves special attention, and ought to render the public more anxious to second the efforts made by the profession and the legislature to disseminate genuine vaccination, which is truly the best and safest preventive of variola.

Hydrocephalus, hepatitis, rheumatism, convulsions, and typhus fever, have also proved more fatal during the period referred to in the present report, than in the previous year. From hydrocephalus 716 deaths have occurred, instead of 684, during the former six months: from hepatitis 99 fatal cases, in contrast to 73; from rheumatism 121 instances, instead of 116 previously reported; while convulsions caused death in 1013 individuals, in place of 955 during the former period; and lastly, from typhus fever—at all times a good indication of public health—instead of 962 fatal cases formerly reported, 1140 occurred, of which 171 took place during the month of March in the current year; whereas only 126 deaths by the same cause were recorded in the same month of 1850. This shews that in this disease, as well as in some other maladies, the recent spring has proved more unhealthy than the preceding.

In addition to the diseases now enumerated to have prevailed less fatally than previously, erysipelas also deserves notice. The fatal cases amounted only to 168 during the last six months: whereas 228 cases were met with in the parallel two quarters of 1849-50. Like general dropsy, ascites has been also less frequent than previously, although not to any considerable extent,—58 deaths from this malady having been reported throughout the period embraced in the present report, instead of 63 cases during the former half year. Other illustrations of a similar character might be quoted.

More persons lost their lives by fractures and contusions throughout the metropolis, during the last six months, than in the parallel period ending March 1850; the number of accidents having amounted recently to 305, in contradistinction to 268 reported in the former two quarters. Deaths by drowning have been, unfortunately, also of late more numerous; 129 persons having perished in this manner, instead of 95 during the period previously quoted. The number of persons who lost their lives by hanging and suffocation, during the past six months, was likewise considerably greater than in the same period of the previous year; 125 deaths, by these causes, are now

recorded, in contrast with 86 cases of a similar description in the two quarters terminating the 30th of March 1850. In deaths from wounds the difference was, however, in favour of the former season; 47 persons have died from the above cause during that period, whereas 54 fatal cases were recorded in the six months ending the 29th of last March. The total augmentation of deaths reported from the casualties now mentioned, and other violence, occurred during the last quarter, viz. in January, February, and March of the current year, when not less than 476 persons lost their lives by fractures, drowning, hanging, suffocation, and wounds, etc., in contradistinction to 386 violent deaths of the same severe description, during the parallel three months of the preceding year. Such facts indicate the dangerous occupations of various persons in this great metropolis; whereby numbers are cut off annually, and even to a greater extent than the public generally would perhaps believe, unless upon the most irrefragible evidence. Medical men are fully cognizant of the large numbers of their fellow-creatures who every year die violent deaths, especially among those who form the actual population of London. Those, however, who live in affluence, or pass their days in amusement, and never visit the workshops and crowded haunts of industrious men, know very little indeed respecting the dangerous nature of many occupations therein; whereby health is frequently impaired, and life often endangered. These facts deserve attentive consideration, with a view to prevention of similar accidents in future.

Diseases exhibiting nearly an uniform rate of Mortality. Diseases affecting the kidneys and urinary system, have genarally manifested a remarkable uniformity in the number of deaths; 309 individuals having died from these causes during the last six months, instead of 307 in the previous parallel period. From dropsy, 414 persons are reported to have died, in place of 419. From hæmorrhage, 103, in contrast to 106 previously reported. From phthisis 3,247 individuals perished in the metropolis during the last two quarters, instead of 3,099 in the former period, already so often quoted. From cancer the number of deaths was identical, 455 having been recorded in each of the six months alluded to. From enteritis 178 deaths were reported, instead of 170 last year; and from peritonitis the fatal cases recently amounted to 102, in place of 104 met with during the parallel six months ending in March 1850. Several other maladies manifested considerable uniformity in their rates of mortality. Sufficient data have thus been stated, in the present and previous reports, to prove that, unless under particular circumstances, the ratio of deaths from certain diseases, even amongst an enormous metropolitan population, ranges often within nearly the same uniform standard; but which may be of course, at times, influenced by season, and various collateral external circumstances.

Age of Individuals who have recently died in the Metropolis. A very large proportion of the deaths recently recorded, were amongst young subjects. Indeed, in reference to this very important characteristic of diseases affecting the population of London, I would repeat, in the words of my last report, when alluding to this

subject, that "the large number of children who annually fall victims to disease in London, exhibits a feature in the mortuary reports of the metropolis, which ought to arrest the deepest attention." Great as the proportion then was of individuals cut off before they had arrived at the age of puberty, the number of deaths similarly classed has scarcely diminished; 12,345 persons under fifteen years of age having died during the last six months, which is 44·19 per cent. of the entire mortality within that period. Those dying from 15 to 60 years of age, amounted, on the other hand, to 9,227, being 33 per cent.; whilst 6,252 individuals, or 22·36 per cent. of the whole number, were upwards of 60 years old; thereby leaving 130 persons whose exact age was not registered. The above facts, nevertheless, demonstrate satisfactorily that, notwithstanding many individuals may die prematurely in England, still a large number of the inhabitants attain considerable longevity, if not greater than in any other country of Europe, or even throughout the universe.

Having already adverted to various diseases, which frequently prove very destructive to life amongst children and young persons, it seems unnecessary again to resume that part of the subject. However, one important cause of death amongst infants, merits more than a passing remark at present; as the evil already alluded to in former reports, unfortunately appears increasing. I allude to the "privation of breast-milk", the best nourishment for infants during the first months of their existence. From the want of this, 107 infants perished in London during the last six months; and if the 89 individuals similarly sacrificed in the two quarters immediately preceding be added, it appears that 196 helpless fellow-creatures have fallen victims to this privation during the period of twelve months. This was doubtless, in some instances, the consequence of fashionable mothers neglecting to suckle their own offspring, or, in others, to the poverty of parents, tempted to leave home and their new-born children by the inducement of high wages, ample food, and many creature-comforts they would enjoy as wet-nurses in the houses of the more opulent. Such a custom, unless in particular instances, when the mother is totally unable, from disease or physical causes, to nourish her own infant, should be discountenanced; since experience amply proves, that any deviation from the law of nature, is generally detrimental both to parent and child.

Mortality among the Pauper Population. Similar to the result stated in my last report, the proportion of fatal cases met with, in all the charitable institutions of London, is considerable. Amongst the 27,954 deaths registered during the six months terminating on the 29th of March 1851, almost one-sixth, or 4,451 persons, died in the workhouses, asylums, prisons, and hospitals; which indicates that near 16 per cent. of the total mortality occurred in the above class of the population; many of whom were treated gratuitously during their last illness, besides being supported at the public expense. This fact is creditable to the richer classes of society, and shews the extensive practical benevolence thereby disseminated among the less fortunate part of the community: particularly in the liberal support of numerous public charitable institutions, in which the 4,451 deaths, now alluded

to, were recorded. The majority were male inmates; 2,487 of that sex having died in the above establishments, the remaining 1,964 being females; hence giving an excess of 523 in the former class, or 26·62 per cent. more deaths amongst male than female residents.

Besides the above, a considerable proportion of the deaths, recently recorded, were patients treated at dispensaries. At the dispensary with which I am connected, amongst the 3,161 patients treated by the medical officers of the charity, during the last six months, 58 deaths were reported; being at the rate of one fatal case in every fifty-four and a half admissions. Therefore, if the casualties at every other similar metropolitan institution are taken into account, it must consequently be acknowledged, that the mortality amongst the labouring classes is always very considerable.

Workhouses. Upwards of half the entire mortality amongst the pauper population of London, during the last six months, took place in these institutions. The majority were female inmates; the exact numbers being 1,237 men, and 1,347 women, making a total of 2,564 deaths, or 9·17 per cent. of the whole number. Another feature also deserves notice; viz., that 786 of the above deaths, or nearly one-third, were reported during the last six weeks of the period embraced in this report; which will assist to explain the augmented mortality already stated to have prevailed during the recent season. Many of the fatal cases occurred in persons of advanced life, although a number also were young children; in fact, disease generally has recently proved more destructive to these two classes of individuals, than to persons at the prime of life. Of the deaths recorded in workhouses, only one-fifth, or 543 out of 2,564, of the whole number, occurred in those situated south of the Thames. This is more important, as the total number of inhabitants of the southern districts only amounts to about one-third of those resident on the northern bank of the river. Hence it may be confidently inferred, that sickness has lately prevailed less extensively amongst the pauper population of parishes in the Surrey division, than on the Middlesex side of the Thames, notwithstanding the lower situation, and the admitted greater frequency of epidemic diseases in the former district. Its liability to epidemic influence was remarkably illustrated in former times, during the prevalence of plague; and more recently in 1849, when upwards of half the deaths from cholera took place in the southern division of the metropolis, although it had a much smaller number of inhabitants.

Lunatic Asylums. The total number of deaths in establishments for insane patients, during the past six months, amounted to 221; of whom 116 were male, and 105 female lunatics. This appears a large mortality, especially if contrasted with the previous summer and autumn quarters, when the aggregate deaths, in the same institutions, were 171. The results now mentioned are, however, consistent with general experience; since death oftener supervenes, amongst lunatic patients, during the cold and severe weather of winter, than in temperate seasons; notwithstanding that mental disease more frequently attacks individuals in the hot days of summer, than in the colder months.

The above comparative amount of fatal cases, met with in the two sexes of lunatics, is also interesting; as the figures now quoted fully bear out a remark which I have made elsewhere; namely, that "mania, although more common among women, is in them more curable, and less fatal than among men". A larger number of female lunatics being usually under treatment in the metropolitan asylums than of males, the occurrence of 105 deaths among the former sex, in contrast to 116 among the latter, strongly supports this view; especially if the facts recorded in my last report be remembered, wherein it is stated, that 96 insane male patients, and only 75 females, died during the period therein included. According to the above data, besides others which might be quoted if necessary, a more unfavourable prognosis of the termination, in cases of insanity, may be given, *cæteris paribus*, in men than women; whilst a greater number of recoveries may be confidently expected in the latter, than in the former class of lunatics.

Metropolitan Prisons. I now approach a most important subject of inquiry, as well to members of the medical profession, as to legislators and philanthropists. Into the whole of this interesting question, the present is not, however, the proper place to enter at any length; the point, now under discussion, being simply the mortality recently met with in these public establishments. Judging from the number of deaths reported in all the prisons of London, during the last six months, the inmates seem to have been healthy, and the localities salubrious, with the exception of Millbank. Notwithstanding that the average number of prisoners in the metropolitan gaols, including the hulks at Woolwich, usually amounts to about 6,120, and that even these are often changed, only 27 inmates have died during the last two quarters; 20 being men, and 7 women. This constitutes a very small rate of mortality; and as eleven of the above cases, or 10 men and 1 woman, were reported from the Millbank Penitentiary, it hence becomes evident, that residence in a London prison, speaking generally, seldom proves inimical to the bodily health. Millbank, however, does not appear so salubrious as several of the other prisons; for two-fifths of the entire deaths in these institutions, now reported, took place there; although the number of prisoners only averages about one-fifth the total amount. When we reflect on the statements promulgated, in ancient times, respecting the insalubrity of the London gaols, it is highly satisfactory to find, whatever difference of opinion may still prevail in regard to the discipline in force in certain quarters, that, with the exception just mentioned, the physical health of the majority of prison inmates is often better within, than without the walls of these receptacles. This is, doubtless, in great part, owing to the sufficient and wholesome dietary allowed to prisoners, as well as to their being less exposed to the demoralizing influence of vice and intemperance. It is farther worthy of note, that at the City Bridewell, although situated in a densely populated neighbourhood, and having Fleet Ditch on one side, with Puddle Dock very near the other, only one prisoner died during the last two years; namely, a female from phthisis of long continuance; notwithstanding the number of com-

mittals amounted to 2,108 during the above period. The principal complaints noticed among the inmates, have been cutaneous and venereal disorders: whilst the number of infirmary cases have seldom exceeded three at one time. It is also important to state, when the cholera prevailed with great intensity in this district of London, during the autumn of 1849, not a single case occurred within the walls of Bridewell. This exemption becomes more remarkable, when it is considered that a large proportion of the prisoners here confined, were, it may be said, predisposed to such a disease, from the destitute condition to which many of the vagrants were reduced previous to their committal.

Lying-In-Hospitals.—The mortality reported from these public establishments, of which there are four within the metropolis, has been very moderate; indeed, the rate was much under that recorded during the previous six months. The number of deaths met with, throughout the two quarters, embraced in the present report, was only fourteen, of whom seven were children, and the rest women. It should be also remembered, that eighteen deaths during child-birth occurred in the same institutions, during the two quarters immediately preceding, besides the deaths of twelve children. These statements and facts indicate, that the condition of lying-in institutions has been recently more salubrious than ordinary; whilst no puerperal epidemic malady seems to have prevailed in any of these hospitals, which sometimes presented, in former years, a very high rate of mortality.

Hospitals for Special Diseases. Within this category, four hospitals are now comprehended, upon each of which establishments I propose making a few general observations. In order, however, to secure accuracy respecting the number of patients admitted, and the total amount of cures and deaths recorded, I addressed a note to different friends officially connected with the several charities, to which applications they all courteously replied, giving me the figures contained in the subsequent statements. To these gentlemen I would now return my sincere thanks. Not only is the information valuable, which has been thus furnished, to myself individually, but the various facts and data will likewise prove highly useful to other observers. The first special institution which merits notice, is that appropriated to syphilitic diseases.

Lock Hospital. During the last six months, 166 patients have been admitted into this establishment, consisting of 85 men, and 81 women, whilst 128 persons were discharged cured, comprising 71 male and 57 female patients; but no death occurred throughout the entire half year. It hence appears, the ratio of cures, in both sexes, was 77 per cent,—the mortality *nil*. In regard to male patients, considered separately, the proportion of cures was greater than among females; 83·53 per cent. of the former, and only 70·37 per cent. of the latter sex has thus been discharged convalescent. It may therefore be inferred, that most complaints affecting female inmates of the Lock hospital are of a more inveterate character, and require a longer

period for their treatment, than diseases usually affecting male patients, although the numbers of both sexes admitted were nearly identical. This inference may perhaps appear as not yet sufficiently proved by the facts adduced; nevertheless, the deduction is reasonable, and I now venture to express such an opinion, believing it deserves mature consideration, and will be verified by more extensive experience.

Hospital for Consumption, and Diseases of the Chest (at Brompton). Phthisis unquestionably constitutes the most fatal disease affecting the inhabitants of this country. The average annual mortality from that complaint usually amounts to about 7,000 deaths, in London alone; whilst, throughout England and Wales, the number ranges near 55,000 per annum. Such mortuary details sufficiently indicate the prevalence and severity of this malady, amongst all ranks of the population. With a view to investigate, and to treat specially pectoral complaints, the charity adverted to in the present paragraph was some years ago established; and into it, according to an official return kindly furnished on my application, 194 patients, consisting of 118 men, and 76 women, were received during the six months embraced in this report. The number discharged "more or less relieved", as stated in the document already mentioned, was 88 males, and 70 females; thus making a total of 158 individuals. Whether any patients were ultimately cured, it is difficult to say definitively, as the statement supplied does not contain particulars relative to that circumstance; indeed, I have been informed, the word "cured" is never entered upon the registers of this institution, as it might give rise to erroneous impressions, or lead to discussions which could produce no beneficial consequences. The deaths reported during the six months embraced in the present report, amounted altogether to 33, of whom 22 were men, and 11 women; hence, the gross mortality recorded at the Consumption Hospital, compared with the number of admissions, reached 17 per 100. However, on separately comparing the mortality amongst the two sexes, it appears, the ratio actually amounted to 18·64 per cent. in male, and only to 14·47 in female patients, which shews, that consumption proved, at least during last winter, comparatively less fatal to the latter, than the former class of inmates; although, it is well known, that the disease more commonly attacks women than men in this climate. In proof of such an opinion, besides the fact, that during the two quarters immediately preceding, the proportion of deaths in the two sexes, at this charity, was somewhat different from the present, notwithstanding 33 fatal cases were also then reported, of whom 15 were female and 18 male patients, I would mention, that in 1847, 25,083 males died of phthisis, against 28,234 females similarly affected, throughout England and Wales. This statement also shews, that nearly as many persons are annually carried off by consumption, as by typhus and pneumonia combined, which form two of the next most deadly complaints prevalent at the present time in Great Britain; seeing that 30,320 patients lost their lives from typhus fever in the year just quoted, and 23,447 from inflammation of the lungs; thus making an aggregate of 53,767 indivi-

duals who became victims to the above-named maladies. Another feature indicating the great prevalence of pectoral disorders in this country, and also their severity, may be referred to as evidence,—namely, that almost one-fourth of the total deaths recorded by the registrar-general, including consumption, usually arise from affections of the respiratory organs. This occurred during 1847, when, in a total mortality of 420,977, not less than 104,432 fatal cases were reported from diseases of the lungs, and of the other organs of respiration; to which statement, it may be also added as an important fact, that one person in every 310 of the whole population annually dies of consumption.

Small-Pox Hospital. During the six months terminating on the 29th of last March, 264 patients affected with variola were admitted into this institution, whilst the deaths amounted to 46; consequently, the mortality averaged 17·42 per cent., or nearly two in every eleven cases. Considering the malignity which variola so often exhibits, the above ratio of deaths does not appear excessive; but, if the fact be also taken into account, that about two-thirds of the patients admitted had been previously vaccinated, the results now reported assume quite another aspect, as they then shew, that either the individuals had never been properly imbued with cow pox, or if vaccinated, its protective influence had become worn out, or eliminated from the system. Respecting vaccination, as a protection against small-pox, this is not the proper place to investigate cursorily so important a question; nevertheless, I would express my conviction, that in a very large majority of persons, who exhibit the genuine cow-pox, the likelihood of being attacked by variola is very small; but if this should happen, the prospect of a fatal termination is more improbable.[1]

In addition to the 264 patients attacked by genuine variola, and removed into the small-pox hospital, six individuals affected with eruptive diseases, not variolous, were likewise admitted. Amongst these, however, no death occurred; consequently, altogether, 270 persons were treated as inmates, about one-third only being females; hence, the disease seems to have been, according to the above data, twice as common in men as in women. This conclusion coincides, in some degree, with general experience; and it may be stated, in proof of its correctness, that in 1847, when 4,227 deaths were recorded from small-pox, throughout England and Wales, 2,230 took place in males, and only 1,997 in females; thus giving 233 more fatal cases amongst the former than the latter sex, although women are considered to be the most numerous class in this country.

In comparison with the number of deaths now recorded as caused by small-pox, it may be interesting to mention, that nearly one hundred years prior to the time already quoted, viz., in 1749, notwithstanding that the population of London was only about 780,000, or scarcely one-third its present amount, no less than 2,625 persons died from variola in the metropolis, one-tenth of the total mortality being

[1] The reader is referred to the able exposition of this subject by Dr. A. Knox, in the London Journal of Medicine for December 1850, and April 1851.

then alone occasioned by this malady. Even subsequently to the introduction of inoculation, authors state that, one in every fourteen inhabitants born in England became the victims of small-pox—so malignant was this complaint at the above period. Now, however, and even in spite of the prejudices frequently still entertained by parents, especially amongst the lower ranks, who are often very adverse to employing vaccination, this scourge of the human race has, nevertheless, proved much more rare in many districts of England. Such an opinion seems more correct, when it is known that, only one person in about every 85 individuals born at present dies from small-pox; whereby, this disease, from being formerly the most fatal malady amongst the population, has fallen to a much lower position in the mortuary scale, and now occupies usually the fifteenth place on the list of deaths.

Fever Hospital. In this establishment, now situated at Islington, the deaths recorded amongst the inmates, during the last six months, amounted to 42; of which 19 occurred among the female, and 23 among the male patients. Compared with the mortality met with throughout the two quarters immediately preceding, the amount just mentioned is rather less than that previously reported; seeing that 50 patients then died in the Fever Hospital, of whom 26 were male, and 24 female inmates; whereby the proportion of the former sex was predominant at both periods.

Believing that it may prove interesting to make a few general remarks respecting the prevalence of febrile diseases in the metropolis, during the past year, especially if illustrated by the records of this useful institution, I would observe, that 544 patients were admitted, during the above period, in lieu of 653 the preceding year; thus making a diminution of 109. The numbers discharged cured amounted to 421, or at the rate of 77·38 per cent.; and, as the deaths were 90, the aggregate mortality of all cases, therefore, reached 16·50 per hundred,—being very nearly the average of the two preceding years.

Of the patients admitted during 1850, 357 were affected with continued fever, 59 with scarlatina, and 128 laboured under other diseases than fever. Again, in regard to the numbers dismissed cured, it appears, by the annual report, that 275 persons attacked by continued fever, left the hospital convalescent, 52 recovered from scarlatina, and 94 previously suffering from other diseases, not fever, were restored to health. Amongst the 90 deaths already referred to, 52 occurred from continued fever (including typhus, and the interic, or abdominal variety), making 14 per cent. The rate of mortality in the cases of typhus amounted, however, to 22·4 per cent; and of enteric fever, it was about 18 per cent. Seven patients died of scarlatina, and 31 of other diseases than fever; in which latter category, if calculated according to the admissions, the mortality is 24·20 per cent, being rather a high average. It should, however, be stated, in explanation of the above circumstance, and to mark the severe type of the diseases often affecting residents, that considerably more than half the 90 fatal cases now recorded, or 50 patients, died within seven days after their admission.

Before taking leave of the Fever Hospital and its operations, I must transcribe, from an authorized statement lately published, the follow-

ing paragraph, as it possesses much practical value, besides indicating the prevailing diathesis of diseases recently admitted. During the whole of last year, the report says, "Blood-letting has not been resorted to in a single instance; and, in few cases, was even the topical abstraction called for. On the other hand, it was found, when the stage of depression came on, that wine and other stimulants were, as in several preceding years, the chief measures on which dependence could be placed." In addition to the above important remarks, it is also instructive to add, on the same authority, that ague (ordinarily of comparative rarity in or around London) was last year met with in nine cases received into the hospital; all of whom were speedily cured. This fact becomes more interesting, as sometimes not a single case of periodic fever was admitted for years consecutively.

General Hospitals. In my last half-yearly report on the Health of London, I made some cursory remarks respecting the mortality met with at these establishments, which attracted considerable attention at the time, and led to much subsequent discussion. I again resume the subject more willingly, in consequence of being able, through the kindness of others, to bring before the profession some interesting statistical data, illustrating the movement of patients in various metropolitan hospitals. In order that various facts might be classified in an uniform manner, so that general principles might be established upon authentic evidence, and that, at the same time, the results so obtained from particular institutions might be compared, I forwarded to different friends attached to the eleven general hospitals of London, an exactly similar form, to be filled up, in separate columns, with the number of patients admitted, the number of cures, and likewise the deaths recorded during the six months referred to in the present communication. To the gentlemen thus addressed my best thanks are justly due, for their promptitude in replying to these inquiries; and although I have been unable to obtain an answer to every question, in consequence of the want of a secretary in one case, the labour of examining numerous registers in other instances, as also the fact, that sometimes the hospital books were only made up annually; nevertheless the data supplied were valuable; whilst the various figures given in subsequent tables cannot but prove of much use to practitioners, by enabling investigators to form their own opinions, besides otherwise deducing important practical conclusions. With these objects, the general hospitals of London were selected, since a large number of the sick and labouring poor are therein treated, particularly when suffering from the effects of severe disease, or accidents. The nature of the particular maladies affecting some patients, the kind of violence which had befallen others, or the special cause of death in those cases terminating fatally, however instructive such information would undoubtedly prove to the profession, are not detailed in the present report. Indeed, to make similar attempts, even if they did not terminate in failure, would render this communication not only too voluminous, but almost incompatible with the purpose originally proposed; more especially, as any undertaking of that description could be only accomplished by gentlemen officially connected with the institutions. However, I very confidently trust,

the time is not distant, when periodical reports will be regularly published, containing ample statistical details from all the metropolitan hospitals, so that the desideratum, to which reference is now made, will be effectually supplied; more especially, as the proceeding would be highly advantageous, and also conduce much to the advancement of medical science, based upon the best of all foundations—extensive experience.

Statistics of Patients in Nine General Hospitals of London, during Six Months, terminating at the end of March 1851.

Hospital.	Class of Patients.	Admitted.		Died.		Per Cent.
St. Bartholomew's	Medical ..	891		121		13·58
	Surgical ..	1,796		90		5·01
			2,687		211	7·10
St. Thomas's	Medical ..	913		92		10·07
	Surgical ..	1,224		50		4·08
			2,137		142	6·64
London	Medical ..	528		63		11·93
	Surgical ..	1,362		63		4·62
			1,890		126	6·66
St. George's	Medical ..	691		82		11·87
	Surgical ..	785		45		5·73
			1,476		127	8·60
Middlesex	Medical ..	627		51		8·13
	Surgical ..	640		26		4·06
			1,267		77	6·07
Westminster	Medical ..	458		40		8·73
	Surgical ..	318		11		3·45
			776		51	6·57
Charing Cross ..	Medical ..	179		26		14·52
	Surgical ..	443		16		3·61
			622		42	6·75
Royal Free	Medical ..	95		7		7·05
	Surgical ..	219		8		3·66
			314		15	4·77
King's College ..	Both classes		659	59		8·96
	Grand Totals		11,838		850	7·18

According to the data contained in this table, the number of patients affected by surgical diseases generally, but especially at the London and St. Bartholomew's Hospitals, predominated over the medical, excepting at the Westminster Hospital. In the first-named charity, the proportion was five surgical to two medical cases admitted; whilst at St. Bartholomew's, the former were exactly double the latter. Respecting the proportion of deaths recorded, the ratio ranged otherwise; being relatively more numerous amongst medical patients at all the hospitals, than in persons treated by the surgeons; and although that number was identical in both categories at the London Hospital, the comparative result was very different. Speaking generally, in reference to the ordinary rate of mortality met with in medical diseases, the mean averaged highest at Charing Cross and St. Bartholomew's Hos-

pitals, as the proportion, calculated upon the numbers admitted, reached 14·52 per cent. in the former establishment, and 13·58 in the latter; the lowest recorded being at the Free Hospital. Again, amongst surgical patients, the smallest mortality occurred at the Westminster Hospital, where the ratio averaged under 3½ per cent.; whereas, at St. Bartholomew's, five deaths occurred for every hundred admissions; but at St. George's Hospital the per centage of deaths among surgical patients was 5·73. Considerable discrepancy is therefore observed to exist in the gross mortality met with at different institutions. Thus,at King's College Hospital, the ratio seems higher than in any other charity, being near nine per cent., both classes included. On the other hand, the Free Hospital exhibits the lowest, or only 4·77 per cent.; whilst at St. George's, the proportion of deaths was 8·60 per cent.; whereas, at St. Thomas's, it was nearly two per cent. less, being almost identical in amount with that recorded at the London Hospital, where a larger number of severe accidents are usually admitted, than into any hospital throughout the metropolis. Other important inferences may be likewise deduced from the various figures given in the table, especially, as they not only illustrate the general mortality met with in various public charities, but likewise state the gross number of patients treated, during the period comprised in this communication.

No answer having been returned to my application respecting the movement of patients at University College, or Guy's, Hospitals, during the last six months, I regret it has been out of my power to enter either of these institutions in the table I have compiled. However, on examining the Registrar General's weekly reports, it appears 70 patients died in University College Hospital during the two quarters ending last March, instead of 78 in the previous; whilst at Guy's, the total deaths were 191 in the recent period, contra-distinguished to 164 in the former; thus making an increase of 27 fatal cases, or about one-seventh. Although it was impossible to procure the requisite return regarding Guy's Hospital, a friend, who obligingly examined the registers, states, that the medical and surgical cases admitted at this charity, from March 1850 to March 1851, amounted to 4,165; the deaths being 349 during the same twelve months; so that, the rate of mortality ranged within a fraction of 9·5 per cent., being higher than that recorded as occurring in any establishment quoted in preceding pages.

Notwithstanding discrepancies may appear in the mortuary details received from several hospitals, during the last six months, as compared with the two quarters from March to October 1850, the total deaths in the more recent period was greater, being 1,111, or 60 above the number recorded in the previous, when the aggregate amounted to 1,051. Even if the first three months of 1851 are alone taken into account, still an increase in the mortality will be found to have supervened in the hospitals, as 604 deaths, or more than half of the whole amount, took place in the months of January, February, and March, in contradistinction to 507 reported during the quarter immediately preceding. It may be farther stated, in proof of the augmented sickness more recently prevalent in London, as compared with the parallel quarter ending in March 1850, that 583 deaths occurred, during that last-named period, in the eleven general hospitals. This result also

confirms the statement given in a former paragraph, when alluding to the augmented mortality lately noticed amongst workhouse inmates.

Thinking some inquiry regarding the sex of patients treated in metropolitan hospitals, would prove interesting, the following table has been constructed with the express object of illustrating that question.

Sex of In-patients Admitted and Died in Six General Hospitals of London during Six Months, terminating at the end of March 1851.

Hospitals.	Class of Patients.	Admitted.		Died.	
		M.	F.	M.	F.
St. Thomas's	Medical.....	405	508	45	47
	Surgical	784	440	31	19
London	Medical.....	321	207	38	25
	Surgical	941	421	43	20
St. George's	Medical.....	347	344	41	41
	Surgical	521	264	32	13
Middlesex	Medical.....	286	341	27	24
	Surgical	413	277	19	7
Charing Cross	Medical.....	91	88	12	14
	Surgical	281	162	10	6
Royal Free	Medical.....	65	30	6	1
	Surgical	117	102	6	2
	Totals	4,572*	3,184	310+	219‡

* Being 1,388 more males than females, or an excess of 43·59 per cent.
+ Or 6·78 per cent. ‡ Or 6·90 per cent.

Viewed in a general aspect, the above statement shows that a large proportion of hospital inmates were male patients,—proportions in a hundred being about 59·33 males to 40·67 females. At two institutions, however, the reverse was the case in respect to medical patients, namely, at St. Thomas's and the Middlesex Hospitals. In the former, one-fourth more females than males, labouring under medical diseases, were admitted; and a similar peculiarity occurred in the latter charity, although the difference was less considerable. In the other institutions, more male surgical patients were received into the wards appropriated to that class, than of the opposite sex; particularly at the London and St. George's Hospitals, in both of which receptacles, the number of male surgical patients was about double that of females.

The average rate of mortality in the two sexes, speaking generally, was almost similar; the difference being, however, rather against females, in whom it was nearly 7 per cent.; whereas, amongst male patients, the mean ranged about six and three quarters. This result was occasionally reversed; for instance, at the Middlesex Hospital, the mortality exceeded six and a half per cent. in male patients, whilst, amongst females, it was under five and a half; thus making a difference of one per cent. in favour of the former. On the other hand, at St. George's Hospital, the ratio was identical amongst the medical patients; since, exactly the same number of male and female inmates, of that division, died, whilst the admissions were very nearly equal.

Nevertheless, in the surgical department, the mortality ranged differently, being under five per cent. amongst female patients, and amounting to 6·14 per cent. in the opposite sex. Reasoning from these, and previously recorded premises, practitioners may fairly assume, that the prospect of a fatal termination in male or female patients, when labouring under medical diseases of an ordinary kind, will be nearly alike; whereas, surgical complaints will probably prove more dangerous in the former, than in the latter sex. At the Charing Cross Hospital, deductions somewhat different may be derived from the figures supplied; thus, the proportion of deaths amongst female inmates, of the medical wards, was greater than in males of the same category; the former being nearly 16 per cent., and the latter ranging about 14·28. Nevertheless, amongst surgical patients, the ratio coincided with that of other hospitals; the mortality being 3·55 in male patients attacked by surgical maladies, and 3·70 per cent. in females also of that category. The above conclusions being, however, based upon a limited number of data, they should be, therefore, received as only approximations to the truth; or rather, as a general illustration of the practical knowledge which would be certainly obtained, if a more extensive series of facts and figures were brought into calculation. Indeed, could accurately detailed registers of the public hospitals—kept upon an uniform system—be made available, the benefits, which must thereby accrue to the profession, would prove invaluable; since the medical attendant, instead of feeling otherwise occasionally doubtful, respecting the result likely to supervene in particular diseases, might then foretell future events almost as certainly as actuaries and physicians (conversant with the science of life insurance) now prognosticate the probable age which particular individuals, under ordinary circumstances, may expect to attain.

One of the questions put by me to the officers of general hospitals, referred to the proportion of patients discharged cured. Owing, however, to the difficulty of separating absolute cures from cases which left the wards relieved, with a fair prospect of future convalescence, it has become impossible to discuss this point in a satisfactory manner. Notwithstanding the above defect, according to the returns obtained from several charities, it appears that more sick inmates were cured, speaking relatively, in the larger than in less extensive establishments; that surgical patients oftener recovered than medical; that females, treated in the medical division, became convalescent in a greater proportion, than males belonging to the same department; and lastly, that surgical patients, of the male sex, appeared to recover from their various maladies in smaller numbers, than female inmates similarly circumstanced.

Statistics of St. Thomas's Hospital. Believing that it may prove interesting to my readers, I here offer a few general remarks, respecting the principal occurrences met with in one extensive metropolitan hospital. I am induced to do so, because numerous interesting pages have been recently dedicated, in the London Journal of Medicine, to the illustration of various important subjects connected with these establishments. I select St. Thomas's—one of the oldest

and most magnificent institutions of the kind in the metropolis,—and within whose wards 4,239 in-patients were admitted during the year 1850. These were not re-admissions, but separate individuals; as the system of nominal re-registration of the same patient is entirely excluded from the following statistical returns; which were obtained through the kindness of an influential official friend. In reference to the practically useful subject of hospital statistics, it farther affords me much satisfaction to state, that effective measures are now being taken to obtain an ample statement of all the principal points of interest connected with the numerous cases of disease treated, during the current year, at this hospital, besides the results obtained. This report, when completed, will doubtless prove creditable to the managing authorities, as well as beneficial to the entire profession; whilst it may become a good example for imitation in other quarters.

To shew the nature of the diseases which proved fatal in this charity last year, I would now direct special attention to the subjoined report, enumerating the causes of death in the 270 fatal cases recorded at St. Thomas's Hospital during 1850.

Abscess 6	Dropsy 2	Paralysis 3
Aneurism 3	Dysentery 1	Pericarditis 5
Apoplexy 6	Enteritis 1	Phthisis 59
Bronchitis 10	Erysipelas 2	Phlegmon..... 6
Burns and Scalds .. 6	Fistula 1	Pneumonia 10
Cancer 9	Fractures 11	Poison 1
Convulsions 3	Gout 1	Purpura 1
Diabetes 1	Hæmorrhage 4	Scarlatina..... 1
Died on entry 1	Hepatitis 1	Scrofula 4
Disease of Brain 2	Hernia 3	Stone..... 1
——— Heart 18	Intestinal Ulcers .. 1	Syphilis..... 2
——— Kidney .. 7	Laryngitis 3	Tetanus 1
——— Liver 12	Metria..... 2	Typhus 10
——— Lungs 6	Mortification 4	Ulcer..... 2
——— Stomach .. 6	Nephritis 7	Violence 4
——— Uterus.... 3	Ovarian Dropsy 2	Not specified 15

Total..... 270

According to the above statement, nearly one-third of the entire mortality was produced by diseases of the respiratory organs; comprising 10 fatal cases of bronchitis, 10 of pneumonia, 6 of affections of the lungs, 3 of laryngitis, and 59 of phthisis; thus making, altogether, 88 deaths by these maladies. Hence, all the facts here recorded, entirely coincide with the observations contained in a previous page, and illustrate the great frequency of pectoral complaints throughout England; whilst they also indicate that consumption does not constitute a cause of exclusion from every general hospital of London, seeing, not less than 59 persons died of phthisis during last year, in this ancient charity; of whom 37 were male, and 22 female patients; whilst 115 left the institution more or less relieved, and four were reported cured.

The following table, respecting the age and social condition of the various individuals who recently died of consumption, in St. Thomas's Hospital, was drawn up from the register kept at this institution, and deserves perusal.

Table of Age and Social Condition of the 59 *Fatal Cases of Phthisis recorded in St. Thomas's Hospital during* 1850.

Thirty-seven Males.						Twenty-two Females.		
Age.	Single.	Married.	Age.	Single.	Married.	Age.	Single.	Married.
						18	2	..
				13	7	19	1	..
21	2	..	40	..	1	20	1	..
23	3	1	41	1	1	21	2	..
25	..	1	42	2	..	23	2	..
26	1	..	43	1	..	25	1	1
27	1	2	44	1	..	26	..	1
30	2	1	47	3	..	28	2	1
31	1	..	49	..	1	30	..	1
32	1	..	53	1	1	31	1	..
33	..	1	54	1	1	34	..	1
34	..	1	55	..	1	36	1	..
38	1	..	64	..	1	37	..	1
39	1	..				44	2	..
						59	..	1
	13	7		23	14		15	7

From the above figures it appears, that more single persons than married, in both sexes, died of phthisis; there being 38 of the former, to 21 of the latter; whilst about half the whole number, or 29 individuals, had not exceeded their thirtieth year at the period of death. Such peculiarities, especially in reference to age, seem to have been indubitably pronounced amongst female patients, as 15 of the 22 cases did not exceed 30 years of age; and of these 11 were single, with only 4 married women. On the other hand, out of the 37 male patients, not more than 14, or nearly two-fifths, were 30 years of age or under; of whom, 9 were single men, and 5 married. It may hence be fairly inferred, that consumption proves a more serious malady amongst young unmarried women, than among the married. At the same time, the disease seems to prevail also less frequently in the opposite sex similarly circumstanced; as 9 single men attacked, at or under 30 years of age, died from phthisis, in contrast to 5 who were married.

Another point in reference to hospital statistics also deserves notice, the more so as it illustrates, to some extent, the general features of most diseases affecting patients received into these public establishments; I mean the length of time during which sick inmates remained under medical treatment. This is an important question for inquiry; because, if any facts of that kind be correctly ascertained, professional men can, from such tables, confidently deduce inferences respecting the nature, whether acute or otherwise, of the chief complaints treated in the wards of a particular institution. In order briefly to illustrate the point adverted to, I subjoin a classified return of the exact period which all the 270 patients, who died in St. Thomas's Hospital during 1850, remained under medical or surgical treatment. The details it contains seem interesting, and merit examination.

Length of Residence in St. Thomas's Hospital, during 1850, *of the* 270 *Patients whose Diseases terminated Fatally*

88 Surgical Patients.				182 Medical Patients.			
M.	F.	Total	Time in Hospital.	M.	F.	Total	Time in Hospital.
6	1	7	Died day of entry	5	2	7	Died day of entry
4	5	9	Do. 1 day	5	4	9	Do. 1 day
4	1	5	Do. 2 do.	5	5	10	Do. 2 do.
1	..	1	Do. 3 do.	6	2	8	Do. 3 do.
..	1	1	Do. 5 do.	3	3	6	Do. 4 do.
3	1	4	Do. 6 do.	5	1	6	Do. 5 do.
7	8	15	Do. 1 week and under 2	4	1	5	Do. 6 do.
6	3	9	Do. 2 do. do. 3	14	13	27	Do. 1 week and under 2
6	2	8	Do. 3 do. do. 4	16	5	21	Do. 2 weeks do. 3
4	1	5	Do. 4 do. do. 5	13	6	19	Do. 3 do. do. 4
3	..	3	Do. 6 do. do. 7	7	6	13	Do. 4 do. do. 5
3	..	3	Do. 7 do. do. 2 months	2	6	8	Do. 5 do. do. 6
5	1	6	Do. 2 months do. 3 do.	6	5	11	Do. 6 do. do. 7
2	1	3	Do. 3 do. do. 4 do.	5	1	6	Do. 7 do. & under 2 mnts.
1	2	3	Do. 5 do. do. 6 do.	11	5	16	Do. 2 months & under 3
..	2	2	Do. 6 do. do. 7 do.	1	..	1	Do. 3 do. do. 4
1	..	1	Do. 7 do. do. 8 do.	..	2	2	Do. 4 do. do. 5
1	1	2	Do. 8 do. do. 9 do.	2	1	3	Do. 5 do. do. 6
1	..	1	Do. 11 do. do. 12 do.	1	1	2	Do. 6 do. do. 7
				1	..	1	Do. 7 do. do. 8
				..	1	1	Do. 8 do. do. 9
58	30	88		112	70	182	

Looking at the various data contained in this table, and taking the surgical patients in the aggregate, 27 persons, or 30·68 per cent. of the entire number, died under one week's residence in the hospital. Where the period did not exceed four weeks, 59 surgical patients, or 67·04 per cent., are reported to have died within that term. Again, in regard to medical cases, the ratio of mortality averages rather less at similar short periods; 51 deaths, out of the 182, having occurred under one week from the period of entry, which is equal to 28·02 per cent. Where the time of residence was under four weeks, the proportion, in that case, reached 64·83 per cent., seeing 118 out of the whole 182 patients treated by the physicians died before twenty-eight days had elapsed. The proportion of deaths amongst female surgical patients, whose treatment in hospital ranged under four weeks, actually reached a higher amount than amongst surgical male patients: this is shown by the fact, that 22 of the 30 deaths were classed in this category,—giving a ratio of 73·33 per cent; whereas, amongst the 58 male surgical patients who died before they had resided twenty-eight days in hospital, there were only 37 deaths, or 63·96 per hundred. This indicates that the particular maladies, in these cases, were neither so acute nor rapid in their course amongst men as women. The results recorded in medical patients, when residence in hospital did not exceed four weeks, proved, however, somewhat different, if the male inmates were compared with the opposite sex: thus, 76 of the 112

male patients who died during 1850, had not been under medical treatment beyond twenty-eight days,—thus making 68·03 per cent., whilst the number of casualties amongst female medical patients, similarly circumstanced, was 42, being at the rate of 60 per cent. From these facts, it is clearly indicated that diseases usually treated by physicians seem of a severer type, and become more rapidly fatal among men, than in maladies affecting women. Although the surgical cases ending fatally at St. Thomas's, were less numerous than the medical, a larger proportion of the former class remained longer in hospital before the fatal termination, than prevailed amongst the other division, where disease likewise terminated in death. Six surgical patients out of 88 had resided upwards of six months before death, whereas, only four individuals amongst the total 182 fatal cases in the medical ward, were under treatment for a similar period. Again, the average number of beds occupied nightly by sick persons, amounted to 446, throughout the whole period referred to in previous pages; whilst five weeks and four days constituted the mean time during which each inmate continued in the establishment.

Besides these general statements,—possessing considerable interest, it is also instructive to remind readers, that the mortality reported amongst surgical patients of every description, treated at St. Thomas's Hospital, ranged about four per hundred, compared with the admissions; contra-distinguished to which, the ratio of persons affected with medical diseases,—also proving fatal, was more than double that amount, or fully ten per cent. if calculated in the same manner; thus explaining several results of an important character, and nearly analogous to those experienced, at almost every other similar medical institution, throughout the metropolis.

24, Brook Street, May 1851.

BIBLIOGRAPHICAL RECORD.

Practical Remarks on the Treatment of Aneurism by Compression with Plates of the Instruments hitherto employed in Dublin, and the recent Improvements by Elastic Pressure. By Jolliffe Tufnell, M.R.I.A., Fellow of the Royal College of Surgeons in Ireland, Surgeon to the City of Dublin Hospital. pp. 154. Dublin : 1851.

In this little work, Mr. Tufnell gives the results obtained in Dublin from the treatment of Aneurism by Compression ; and his conclusions are altogether in favour of the new practice. The number of cases reported to have been treated in Dublin, by compression, from October 1842 to March 1851, is thirty-nine ; and, of these, "thirty have been completely cured. In one, compression was discontinued, the aneurism not increasing subsequently in size ; in two, the ligature was resorted to, and the artery tied, with success ; in three, amputation was necessary, each instance being followed by recovery ; in one case, death ensued from erysipelas ; and two died from coexisting disease of the heart." The author expressly informs us that this summary comprises *all* the cases of aneurism treated by compression in the Irish metropolis ; and that therefore it is untrue to allege that the Dublin surgeons have put forth only the favourable, and concealed the unfavourable, cases ; and Mr. Tufnell tells us, moreover, that, in only *one case* (namely, one in which erysipelas supervened) could death be in any way attributed to compression. Now, in contrasting these results with the records of cases in which the ligature has been employed, the success of the new practice is still more clearly manifested. In the work of Dr. Crisp, for instance, the particulars of one hundred and eighty-eight cases are detailed, of ligature of the artery for popliteal or femoral aneurism ; and of these, thirty-five died from the effects of the operation ; eleven recovered after suffering subsequent amputation ; two recovered after sloughing of the sac ; one recovered after mortification of the toes ; and one after sloughing of the integuments : so that more than the fourth of these cases either terminated fatally, or were maimed for the rest of life. Again, Mr. Phillips has collected one hundred and seventy-one cases of aneurism affecting the lower arteries which were submitted to the ligature ; of these, fifty-seven, or one in three, were unsuccessful ; and all these patients died, except two, not of the disease, but of the operation. The third table is afforded by Mr. Norris, who gives the details of one hundred and seventy-seven cases where the operation was performed. Of these, thirty-eight died from the effects of the operation ; six recovered after subsequent amputation ; ten recovered after suppuration of the sac ; and two after gangrene of the foot,—making nearly one out of every three cases, which either terminated fatally, or were, to a certain extent, maimed for the rest of their lives. This evidence is undoubtedly very strong ; and we cannot wonder at the stress which is laid upon it by Mr. Tufnell.

The author very justly remarks, that there is really no difference between the mode of cure by the ligature, and that performed by compression ; for in each instance the current of blood is arrested, and the impulse of the heart no longer communicated to the sac of the aneurism ; and he maintains that compression is equally efficacious with the ligature, when the former is *properly* and *cautiously* applied.

In answer to the objection, that the cure by compression is prolonged and tedious, Mr. Tufnell admits that twenty-five days may, perhaps, be granted as the period for the treatment ; but he argues that the operation by ligature requires, on the average, nearly an equal space of time. Thus, from the moment of the patient's admission into the hospital, until he is placed

upon the operating-table, a week may be allowed. Sixteen days may be taken as the usual period between the application of the ligature and its separation; and five days more may be granted for closure of the wound, and cicatrization; thus making the time quite as long as in the cure by compression. But, in many cases, the cure by compression occupies a much less time; thus, in certain instances adduced by Mr. Tufnell, the process of cure occupied only *twenty-eight hours* on the average; and, in one case, only *seven hours and a half* were required for total solidification of the contents of the sac, and in a very brief period the patient was again at his usual occupation. In another case, a femoral aneurism was solidified in thirty-three hours. Ten days after, the man left the hospital; and *he was married, and danced at his own wedding, within three weeks from the day that pressure was first applied.*

The instruments which have been, and are now used, for compressing the artery, are described in the work before us; and their form is figured in several plates in the course of the volume. It is impossible to convey, in words, any accurate idea of the apparatus employed by Mr. Tufnell; suffice it to say, that it is sufficiently simple, and that without compressing the limb itself, a pad is made to press precisely upon the artery by turning a screw. The elastic force of vulcanized India-rubber is happily employed to supersede the former methods of pressure by metallic unyielding materials; and Mr. Tufnell justly lays great stress upon the importance of this improvement.

The previous treatment of the patient demands notice; and Mr. Tufnell recommends, in the case of a hyperæmic muscular subject, that the action of the heart should be reduced by restricted diet, purgatives, venæsection, and sometimes digitalis; but in an anæmic weakly patient, that a tonic plan should be adopted. The patient having been thus prepared, the apparatus is adjusted to the groin, and the long screw of the instrument is directed obliquely upwards *over the femoral artery* as it passes below Poupart's ligament, and *against* the pubic bone. "This spot", says Mr. Tufnell, "of all in the lower extremity, is the one most suited for compression. Here no nerve is in close apposition to the artery, and the vein is easily avoided by care. Being also superior to the profunda, it is the most fitting point for compression, and effectually arresting the circulation, when employed in those cases of popliteal disease, where symptoms of burning pain in the joint indicate that the aneurism has its origin from the surface of the artery nearest to it, and when the circulation should consequently be diminished as speedily as possible, and to the utmost degree." The pad being placed in position, looking backwards and upwards to the pubis, is to be brought, by the screw, in contact with the skin; then the elastic force is made to bear upon the vessel, and the pressure is to be continued until the pulsation in the tumour is completely checked *to the touch.* Two or three hours will then probably elapse before the patient feels annoyance from the pad, but Mr. Tufnell recommends that the surgeon should not wait until the patient complains of pain, but that, as soon as uneasiness is felt, another apparatus, fitted for compressing the artery in the thigh, and which should be previously loosely applied, should be brought into operation. By these means the circulation is completely arrested. Mr. Tufnell gives the following rule on this point: "Make your command over the circulation complete, but with the minimum amount of pressure by which this object can be gained." In irritable constitutions, where the patient is intolerant of the pain caused by compression, an anodyne draught may be administered. A very good instance of the beneficial effect of anodynes is given in a case occurring in the practice of Dr. Banin. The man had been four days under treatment, and for three nights had not slept, although full opiates had been employed. The instruments, therefore, were loosened, and the man almost immediately fell asleep; but the resident pupil in attendance seized the opportunity of

placing Dr. Carte's instrument upon the artery without waking the patient; and at the end of six hours all pulsation had ceased in the tumour, and it never returned.

Such is an outline of the treatment of aneurism, by compression, practised and recommended by Mr. Tufnell; and we cannot but remark that the results, given in this little volume, have impressed us with a very favourable opinion of this plan of proceeding; and we shall rejoice to find that the success of the system in this country is equal to that which has been achieved by our surgical brethren on the other side of the Irish channel.

Observations on the Diseases of the Rectum. By T. B. Curling, F.R.S., Surgeon to, and Lecturer on Surgery at, the London Hospital. Post 8vo. pp. 123. London: 1851.

Mr. Curling has already earned an excellent reputation as a practical surgeon; and the work before us is well calculated to sustain him in the opinion of the profession. It has unfortunately happened that, with a few honourable exceptions, the rectum has been made a sort of preserve for the especial benefit of gentlemen of the quackish persuasion:—and well stocked has it been with game! There was a story current some years ago of a certain practitioner, in the West of England, who deluded every patient into the belief that he, or she, had stricture of the rectum, and that his gigantic bougie alone could cure them. A certain damsel, daughter of a gallant colonel, consulted Mr. H—— for some trifling dyspeptic ailment, and was speedily informed that she had a formidable disease—in fact, a stricture of the rectum, for which a special course of treatment would be necessary. Shocked, and distressed beyond measure, the young lady hurried home, and communicated the intelligence to her mama. Early on the following morning the colonel was seen, armed with a stout horse-whip, knocking at the door of Mr. H.; but in about half an hour he was observed to leave with a very crest-fallen and nervous air. The fact came out, that the doctor had persuaded Colonel —— *that he too had stricture of the rectum!*

The first object worthy of notice in the work before us, is a very useful speculum invented by the author. It is of a conical form, with a wide gap in the side, extending nearly to the extremity; and fitted with a moveable ebony plug, having a metal plate which perfectly closes the aperture. We consider this extremely well adapted for making examinations of the lower bowel; and by its assistance the true nature of many obscure and troublesome cases may be ascertained, and measures directed accordingly.

Mr. Curling considers chloroform to be a valuable auxiliary in the treatment of diseases of the rectum. "Under its influence the irritable sphincter relaxes, and a complete view can be had of the seat of disease in cases where pain and spasm would otherwise offer almost insuperable obstacles to a satisfactory exploration" (p. 4).

To that painful affection commonly called a *fissure* of the rectum, Mr. Curling applies the name of irritable ulcer. The usual seat of this is in the pouches of mucous membrane, just within the external sphincter. The appearance of a fissure is, in fact, delusive; for it is a superficial oval ulcer, exquisitely sensitive, and giving rise to the most distressing suffering. This is much more common in women than in men. It is seen with difficulty, on account of the spasm which firmly closes the orifice. Chloroform is here invaluable; and with its aid not only can the disease be satisfactorily examined, but easily cured. The treatment necessary is a longitudinal incision through the centre of the ulcer, including the sphincter muscle; by which means this, the great source of mischief, is placed at rest, and the ulcer heals. The healing process may often be promoted by coating a plug of lint with the following application; ℞ Liquor plumbi diacetatis ʒj, confec. rosæ ʒj. M. The plug smeared with this ointment is dipped in sweet oil, and then applied to the part.

As an application to sensitive ulcers of the rectum, Mr. Curling strongly recommends the following ointment, which is also useful in painful affections generally. ℞ Chloroformyli ʒi,—ʒij ; zinci oxydi ʒss ; olei olivæ ʒj ; cerat. cetacei ʒiv. M. Ft. unguentum.

A very clear description is given of the nature of those troublesome companions, *hemorrhoids*, which, says Mr. Curling, "rarely occur before puberty, and which but few persons in after-life altogether escape". In external piles, if palliative treatment does not avail, excision is recommended. In cases of internal piles, the author speaks highly of the benefit derived from a lavement of half a pint of cold spring water thrown into the rectum every morning after breakfast. As an aperient, the lenitive electuary, with sulphur, or the bitartrate of potass at bed-time, is very serviceable. If in these cases the piles are a source of great annoyance, operative proceedings must be had recourse to, and the ligature is strongly recommended. A dose of castor-oil, he says, should be given eight hours before the time fixed for the operation, and a pint of warm water should be thrown up shortly before the surgeon's arrival. When the fluid is discharged the piles will descend. If chloroform be given, the patient should be placed on the side with the thighs raised ; otherwise, the patient should lean over a table with the nates separated. The growth should then be drawn out with a volsellem, and tied tightly around the base, or strangulated with a needle and ligatures. It is well to bear in mind that retention of urine is occasionally the result of this operation. In a case which recently fell under our own observation, a catheter was required night and morning for a fortnight.

The following is the summing up of Mr. Curling's opinions relative to the tying of piles.

"The extirpation of hemorrhoids by ligature is both an effectual and a safe mode of treatment, and the use of chloroform removes almost entirely the pain attending it. Those adverse to the plan have magnified the risks and sufferings, and have spoken of phlebitis and tetanus, and diffuse inflammation, followed by sloughing, as common occurrences after the operation. No fatal case has come under my notice, either in public or private practice. .... An unfortunate result from the application of ligatures to piles is entirely exceptional : and, with common precaution, this proceeding must be regarded as safe as any operation in surgery" (p. 41).

The treatment of hemorrhoidal tumours by strong nitric acid is sometimes very appropriate. The conditions to be observed with regard to the operation have been well laid down by Mr. Henry Lee of King's College Hospital.[1]

Mr. Curling's observations on fistula in ano, chronic ulceration, stricture, and cancer of the rectum, are all based on sound judgment and extensive experience. The work, indeed, bears the stamp of these high recommendations, and contains much sound information respecting a painful, often intractable, and always very distressing class of diseases.

Apology for the Microscope ; being the Introductory Lecture to the First Course on Microscopic Anatomy and Pathology, delivered in the Theatre of the Original School of Medicine, Dublin. By Robert D. Lyons, M.B., T.C.D., L.R.C.S.I. pp. 45. Dublin : 1851.

We should have imagined that the microscope needed no apology from a teacher of the medical faculty in the Irish metropolis ; but we regret to learn, from a perusal of this lecture, that microscopical research is by no means, at present, a favorite pursuit with either professors or students in the sister island. This production of Dr. Lyons is a very eloquent appeal to his professional brethren in behalf of a branch of investigation which, it appears, they have too long neglected ; and we shall be happy to learn that

[1] London Journal of Medicine, vol. for 1849, p. 92, quoted from *Medical Gazette*.

his exertions are crowned with success, and that the reproach is thus removed from the Irish school. The history of microscopical discovery is very luminously described in the lecture before us, and due honour is awarded to the labourers in this fertile and inexhaustible field. We sincerely wish Dr. Lyons the success which he merits, and hope hereafter to see his name recorded among the successful cultivators of this fascinating department of natural history.

Phthisis and the Stethoscope. A concise Practical Guide to the Physical Diagnosis of Consumption. By Richard Payne Cotton, M.D., Assistant-Physician to the Hospital for Consumption and Diseases of the Chest. pp. 97. London: 1851.

The present work—already favourably noticed in this Journal—appeared in the form of six lectures delivered at the Brompton Hospital, and published in the *Medical Gazette*. The author modestly announces that the matter, which his pages contain, "is not intended to supersede any of the larger works upon physical diagnosis, but is merely designed for the use of those whose professional duties require that such matters should be studied, rather in abstract than in detail".

In the first chapter the general characters of the healthy chest are described; the physical symptoms of the first stage of tubercle are detailed in the second, third, and fourth chapters; the third chapter is occupied by the signs attending the second stage of phthisis; and the last chapter is devoted to the consideration of the third stage of the disease.

The whole work is what it professes to be, a concise practical treatise on the insidious and fatal disease of which it treats. The author has had extensive opportunities for observing the symptoms and progress of phthisis; and the results of some of his investigations are now instructively communicated to the profession.

Conspectus Medicinæ Theoreticæ, capita quadraginta tria universa complectens, ad Usum Academicum. Auctore Jacobo Gregory, M.D., olim Med. Theor. nuper Med. Pract. in Acad. Edin. Prof. Editio undecima, omni parte perfecta, prioribus emendatior. pp. 433. Edinburgi: 1850.

Criticism upon a work so well known and so highly appreciated as Gregory's Conspectus is quite superfluous; it is sufficient to welcome the eleventh edition with the remark, that the work, in the elegance of its Latinity, the extent of its learning, and the soundness of its practical views, is one of the most useful and most important of the modern classics. The present edition contains nothing more than the Latin text. It is well printed and carefully edited.

The Book of Almanacs: with an Index of Reference, by which the Almanac may be found for every year (whether in Old or New Style) from any Epoch, Ancient or Modern, up to A.D. 2000. Compiled by Augustus de Morgan, Sec. R.S.A., Professor of Mathematics in University College. London: 1851.

This is a most interesting, and a most extraordinary work. It is correctly described in the title-page, which we have transcribed.

CRITICAL DIGEST OF THE BRITISH AND FOREIGN MEDICAL JOURNALS

PRACTICE OF MEDICINE AND PATHOLOGY.

ILLUSTRATIONS OF FATTY DEGENERATION OF THE HEART: CASES OF THE REVEREND DR. CHALMERS AND DR. ABERCROMBIE.

Dr. Begbie in a valuable paper on this subject, in the *Edinburgh Monthly Journal* for March 1851, relates the following particulars of the last illness of the Rev. Dr. Chalmers, and of Dr. Abercrombie, and the appearances observed after death They will be read with much interest, as well on account of the nature of the fatal affection, as the great and deserved celebrity of its victims, and the close resemblance presented, in many points, by the symptoms.[1] We have considerably abridged Dr. Begbie's essay.

Case I. Dr. Chalmers died in his sixty-eighth year; and was often seen by Dr. Begbie during the last fifteen years of his life. To a mind of the highest order, and of wondrous energy, he united a hale and vigorous, a manly and robust, frame of body; and he spared no exertion, either mental or physical, in endeavouring to benefit his fellow-men. He was hardly ever incapacitated by infirmity, or loss of health, in prosecuting his enterprises; and in them up to his latest hour, he toiled, and spent his energies and his strength. These things show, that the fatal disease which lurked within, which was progressive in its nature, and probably of long-standing, could neither have produced serious uneasiness, nor proclaimed its presence by any unequivocal signs. One alarming illness, it is true, overtook him some years before his death; and though we can now connect that first indication of disordered circulation with a well-grounded suspicion of commencing cardiac disease, yet his perfect recovery, and the absence ever afterwards of any similar manifestation, were calculated to repress all apprehension of danger. The attack happened in the winter of 1834, thirteen years before he died. It was thus:—He was engaged in the early part of the day in attending a meeting of the Presbytery of Edinburgh, and had taken an interest and a share in the discussions. When returning home with a friend, he was suddenly seized, in the street, with loss of power and diminished sensation over the right side; the arm and leg being chiefly affected. He felt, to use his own description, as if instantaneously a large weight of books had been placed in one of the pockets of his great-coat, and had thrown him entirely to one side. He would have fallen to the ground, but his friend supported him, and had him conveyed to a neighbouring house, and, after a little, to his own home, whence Dr. Begbie was called to see him immediately on his arrival. Dr. Begbie found him in bed, calm, but impressed with the conviction that he was struck down by a formidable disease. His mind was quite entire; nor did it suffer in the least during his illness. His speech was somewhat affected, and his articulation was imperfect. The muscles of the right side of the face were partially paralysed; those of the arm and leg decidedly so. Sensation over the whole of the right side was much impaired, and particularly over the thigh and leg, which he continued to beat firmly with the left hand, in the hope, as he said, of recalling sensation. The face was pale, the skin cool, the pulse soft and frequent. There was no headache or giddiness, nor any pain or uneasiness beyond what has been described. The treatment pursued was moderate bleeding, purging, diaphoretics, rest, and quiet. Under this, he daily improved; sensation and motion were gradually restored, and, after a few weeks' confinement, he returned to his avocations,

[1] An excellent Life of Dr. Chalmers is in course of publication by his accomplished son-in-law the Reverend Dr. Hanna, of Edinburgh: a Biography of Dr. Abercrombie is still a desideratum.

and engaged as heartily and laboriously as ever in his literary and professional duties.[1]

Important events in the church by and bye occupied his mind; and negotiations, connected therewith, pressed upon his attention year after year. He was found equal to the time. Perhaps these matters told upon him. He was now approaching his grand climacteric, yet he was firm and robust. With accumulating years came a disposition to obesity, and also the pallid and somewhat sickly look of fading health. Yet he seldom complained; or, if indisposed, it was only by some trivial ailment arising from indigestion. He was sometimes sick at stomach, but he was never faint, nor ever swooned away. He sometimes manifested a sense of exhaustion; but even then he could, when occasion required, rouse himself to great mental or bodily efforts. He had no præcordial pain, nor distress in breathing; no palpitation of the heart, nor intermission of the pulse. He ascended heights with wonderful facility; he slept on either side, and his rest was calm and refreshing. Had any symptoms at this time called for exploration of the chest, it might perhaps have been discovered that the impulse of the heart was feeble and indistinct; and that its first sound was imperfectly heard: and by conjoining these signs with the soft, but not feeble pulse, the pallid countenance, the time of life, and the ready disposition to take on fat, degeneration of the muscular tissue might have been supposed to have already made progress. But this could only have been a reasonable conjecture.

Early in May 1847, when in the enjoyment of his usual health, Dr. Chalmers repaired to London to give evidence before a committee of the House of Commons. He preached on three successive Sundays with all the eloquence and energy of former days; and during the week was much engaged with the business of the committee, shewing no symptoms of serious illness. On his way home, he visited some relatives in the south of England, and reached Edinburgh at the close of the month, in excellent health and spirits. He attended public worship on Sunday the 30th, and met his family in the usual exercises of the day. He retired to rest at an early hour; being engaged on the following day to read to the General Assembly a report, which had occupied much of his time and thoughts. On Monday the 31st, not having responded to the usual call in the morning, his chamber was entered, and he was found cold and lifeless. Dr. Begbie saw the body before it was disturbed. It lay in the half-recumbent posture; the head supported by pillows; the arms folded on the breast. The bed-clothes were scarcely disordered; and on them rested a basin, which had received the contents of the stomach. He had been overtaken by sickness and vomiting; but at what hour it is impossible to fix. This last circumstance of vomiting, coupled with his former paralytic attack, rendered it very probable that some cerebral lesion was the cause of death.

Necropsy. The examination of the body was conducted by Dr. Hughes Bennett on the evening of the following day, the 1st of June. The weather was unusually sultry.

External Appearances.. The body was fat and robust; the head large; the chest broad. Putrefaction had taken place to a considerable extent. The features were swollen, bloated, and of a purple colour. The neck and upper part of the chest were of a green colour, and emphysematous.

Head. The integuments of the scalp were unusually thick; on dividing them, fluid blood oozed from their cut surfaces. The cranium was very thick and dense. It was every where fully a quarter of an inch thick, and in some places three-eighths of an inch; it was unusually weighty. The two surfaces of the arachnoid membrane were pretty firmly united superiorly, and were lacerated on separating the brain. The angle where the falx turns

[1] During the month of June following, Dr. Chalmers apprehended a renewal of similar symptoms; but the threatened attack passed away, and never returned.

down was crossed on both sides, from before backwards, by firm bands of chronic lymph and fibrous tissue, some of which were nearly an inch long. A calcareous deposit, the size of a pea, was situated about the centre of the falx. The cerebral arachnoid was thickened, and perfectly opaque in the immediate neighbourhood of some of the larger meningeal vessels, presenting, on removal, a white glistening appearance; it was easily removed from the cerebral convolutions, which, superiorly, were large, and the sulci deep. The brain weighed fifty-three ounces avoirdupois. Its structure was everywhere healthy. The choroid plexus contained small groups of simple cysts. A large quantity of fluid blood came from the divided arteries at the base of the brain.

Chest. Each lung was slightly adherent at its apex by one chronic adhesion of limited extent. On the left side, the pleura at the seat of adhesion was thickened, over an extent the size of a shilling, about one-eighth of an inch. The serous surfaces and lungs were otherwise perfectly healthy. The pericardium was healthy. The heart was flabby, and unusually soft. The coronary artery was loaded with calcareous deposit, much contracted, and in one place obliterated, presenting considerable resistance to the knife. The heart contained no blood; its endocardial lining was deeply stained of a reddish and purple colour; the valves were healthy. The walls of the left ventricle, towards the base, and at their thickest part, were only half an inch thick; at the apex, in one place, only one-eighth of an inch thick; the surface of the section showed that the muscular substance had undergone fatty degeneration. In some parts of the ventricle, half the substance was completely fatty; in other parts, nearly its whole thickness was fatty, with a line of muscular substance, one-sixteenth of an inch thick, only remaining. Even this muscular substance was of a pale and yellowish colour. The right ventricle was unusually thin, and superiorly was so soft, that it broke down under the finger, and could be torn like a soft pulpy substance. Everywhere the substance of the organ was soft and friable.

Abdomen. The liver was small, of a dirty olive-green colour throughout. The gall-bladder was distended with yellow fluid bile. The spleen was small; on section, it presented a black colour. The omentum and subperitoneal cellular tissue were greatly loaded with fat. The kidneys were imbedded in a surrounding mass of fat an inch thick, they were soft and flabby, of a dark mahogany colour, but in texture healthy. The stomach, internally towards the larger curvature, was of a greenish hue, with slight extravasation of blood below the epithelium. The intestines were healthy.

Microscopic Examination. The substance of the heart throughout consisted of fatty granules. The muscular fasciculi could scarcely be seen, although here and there traces of the longitudinal fibrillæ could be observed. No transverse striæ were anywhere visible.

Dr. Hughes Bennett suggests, as the probable cause of the want of blood in the heart, that it had drained away, in its putrid state, from the divided cerebral vessels, during the examination of the contents of the cranium.

Case II. Dr. Abercrombie died in his sixty-fifth year. He enjoyed, during a long series of years, uninterrupted health. In the winter of 1841, three years before his death, in driving to a professional engagement, he was suddenly seized with loss of power and impaired sensation over the left side, but without loss of consciousness or any affection of speech. He immediately returned home, and gave orders for the abstraction of blood by cupping. Dr. Hunter, who was called to him, found him under great anxiety, complaining of præcordial uneasiness, and slight headache, with frequent sighing, cold skin, and pallid countenance. The pulse was frequent and small at first, but, after a while, it subsided in frequency and rose in strength. Blood was taken from the temple and arm to a large extent, and active purging was pursued by the patient's desire. The details of this attack have been given

elsewhere. It was Dr. Abercrombie's decided impression that his illness was paralysis, connected with cerebral disease, and that impaired mental and bodily power would be the lasting consequences. It certainly never occurred to any of his medical advisers to connect the symptoms with deranged circulation, arising from a damaged heart. He did complain of præcordial uneasiness—it never amounted to pain—and of something more than uneasiness in the left arm and shoulder, and at the base of the scapula; but the circulation was regular, though feeble, and the feebleness might readily have been accounted for by the active measures which he himself employed, and the scanty fare to which he subjected himself,—treatment which no long time afterwards was found to have been entirely misplaced.

Dr. Abercrombie recovered from this attack; and in the course of a few weeks was able to resume his professional duties. He continued pallid, however, and had somewhat the air of an invalid, but his mind was as active and intelligent as ever. Previous to this attack, he had become rather corpulent and fat. He never had any threatening of return of similar symptoms during the three succeeding years, nor any indication of latent disease, beyond what was remarked by Dr. Alison, when, in accompanying him up stairs a few days before his death, he observed that he was breathless. On Thursday, the 14th of November, 1844, Dr. Abercrombie was in his usual health; he engaged with his family in the devotional duties of the morning; he breakfasted with appetite, and, after visiting a domestic in the family, he retired to the water-closet. He was there sufficient time to justify the suspicion that some illness had overtaken him; and, on opening the door, he was found extended on the floor in the arms of death. A few convulsive sobs were heard,—and life departed.

Necropsy. The body was examined by Mr. J. Goodsir, who gave the following account of the morbid appearanes.

Head. The skull-cap was thick. The crista galli, the posterior clinoid processes, and the bones of the head generally, were powerfully developed. The brain was softer than might have been expected at the time of the examination (fifty hours after death). There were no traces of old or recent effusions of blood. The internal carotid, the circle of Willis, and all the arteries of the organ were studded with much atheromatous deposit; and the internal carotids, at their last curve, were slightly dilated. The brain was of great size, and weighed sixty-three ounces avoirdupois. The ventricles were capacious, without an increased amount of serum, which appeared to correspond to the great size of the cavities.

Heart. The pericardium contained a large clot of blood, enclosing the heart as a mould. On the posterior surface of the left ventricle, two-thirds from its base, and about an inch and a half from the septum, there was a fissure or rent, a quarter of an inch long, in the direction of the fibres of the ventricle, with ragged and ecchymotic edges. Towards this fissure, a considerable branch of the left coronary artery passed, but did not enter into it. In the fissure the ruptured orifice of a vein was visible, and a bristle introduced into it passed on towards the base of the ventricle, and appeared on the cut surface of the posterior wall of the ventricle, made on opening the heart. In the neighbourhood of the rupture two irregular ecchymotic spots were situated, through which passed branches of the coronary artery. These spots consisted of effused blood, but their connexion with ruptured vessels could not be distinctly made out. The serous membrane over them was quite entire. Both coronary arteries were much dilated as they passed off from the aorta. Throughout their course they contained in their walls much atheromatous matter, but were not ossified. The aorta and its semilunar valves also contained a considerable amount of the same deposit, but the former was not enlarged. The heart was slightly enlarged and dilated, rather loaded with fat, and remarkably soft, as if from interrupted nutrition. All the cavities of the heart were found empty. There

were extensive adhesions of the right pulmonary and costal pleuræ. The other viscera were healthy.

Mr. J. Goodsir made a microscopic examination subsequently to the drawing up of his report of the inspection of the body, from which it appeared, that the muscular fibres of the ruptured portion of the ventricle (alone examined) had undergone the fatty degeneration, being here and there interspersed with fatty granules, generally in transverse rows,—and that there were masses of fat cells or globules at intervals,—while some of the fibres were nearly empty.[1]

Remarks. Dr. Abercrombie and Dr. Chalmers were both of the age when the tendency to fatty degeneration has been shewn to be most prevalent. Among 83 cases collected by Dr. R. Quain,[2] death occurred in 14 between the ages of 50 and 60 ; in 18, between 60 and 70 ; and in 14, it occurred between 70 and 80. These eminent men had also indicated a proclivity to the disease by a constitutional tendency to take on fat, and in doing so, to assume the pallid and sickly look of diseased nutrition,—facts which have been remarked by many observers. They terminated their lives in the manner most common to those who suffer from it, the one by rupture of the heart, the other in syncope. Of Dr. R. Quain's 83 cases, 28 died in the former, and 26 in the latter mode.

Mr. Paget has remarked, that the principal character which all the cases of fatty degeneration of the heart seem to present, is, that they who labour under this disease are fit enough for all the ordinary events of calm and quiet life, but are wholly unable to resist the storm of a sickness, an accident, or an operation. There may be much general truth in the statement; and in the two cases just recorded, it is worthy of remark, that up to the hour of death the individuals were actively engaged in the labours of most arduous professions, and were overtaken, as in other recorded instances of this particular lesion :—the one, it is believed, by the act of vomiting ; the other, by an effort at stool.

Dr. R. Quain, in referring to the fact that fatty degeneration of the heart is said to be frequently found after death, where its existence had not been suspected during life, has expressed the opinion, that such cases would not often be met with, if a full inquiry could be made into their symptoms; and then goes on to remark :—"I feel the truth of this observation, more particularly in those cases which occur in the progress of advancing life, when, whilst the system generally keeps up its powers tolerably well, the heart suffers from some local cause, such as diseased coronary vessels. In those cases the balance between the system and heart is lost, and phenomena as clear and as pointed as any that can indicate the nature and seat of disease are developed."

What reply do the two cases now related make to this unqualified statement ? The subjects of these cases had made progress in advancing life. They expired in a sudden and unexpected manner; and examination after death disclosed the hidden cause, in the peculiar lesion of the heart, accompanied by the morbid condition of its vessels, to which Dr. Quain refers; yet, during life, neither of them exhibited any of those clear and pointed phenomena to which he alludes. The testimony of Dr. Abercrombie is peculiarly valuable in relation to this point; he never acknowledged, and probably never felt, any of those symptoms of degeneration of the heart indicated by

---

[1] For more ample details of Dr. Abercrombie's case, vide an interesting memoir in the *Edinburgh Monthly Journal* for Dec. 1844, and a similar article in the *Edinburgh Med. and Surg. Journal* for January 1845.

[2] Quain, Dr. Richard, in *Transactions of the Royal Med. and Chir. Society*, vol. xxxiii, p. 121. London: 1850; also London Journal of Medicine, July 1850, p. 705.

Dr. R. Quain,—symptoms which seem more intimately connected with those other morbid conditions and lesions of the organ which usually coexist with fatty degeneration.

Let us shortly inquire what those signs, general and physical, are, which are said to denote this degeneration of the heart, with the view of discovering any modification of their features in the history of the cases now under consideration.

1. First in order, have been mentioned symptoms of cerebral congestion, such as *giddiness*, *drowsiness*, and *coma*. No symptoms of this kind were at any time witnessed; and though manifestations of interrupted circulation in the brain might have been expected to flow from the want of muscular power in the heart to propel the blood brought by the veins from the head; yet, if we except the attacks above described, there were no symptoms which pointed to early changes in the muscular fibres of the heart. It is difficult to account for the exemption from future attacks which both patients experienced, the one during the three, the other during the thirteen, last years of life.

The occasional occurrence of apoplexy and palsy, in connexion with fatty degeneration of the heart, may more readily be traced to other morbid conditions of the organ, which coexist with that particular degeneration, than to the degeneration itself, such as hypertrophy of the left, and dilatation of the right, ventricle; more especially when these again are associated with disease of the blood-vessels of the brain.

2 *Faintness* and *syncope* are next recorded as symptomatic of fatty degeneration of the heart; but they were not observed in either of the cases now related, though there is reason to believe, in the absence of other causes to account for death, that a fatal syncope at last overtook the distinguished individual who is the subject of the first sketch. But syncope is not an uncommon symptom of other affections of the heart, and may naturally be expected to arise where the left chambers of the organ are deficient in muscular power in transmitting the blood to the brain, whatever may be the immediate cause of this loss of power, whether the growth of fat upon the organ, the degeneration of its muscular tissue, or the dilatation and thinning of its walls from other morbid changes. It has been observed, that the peculiar degeneration we are now considering, is at times confined to one ventricle, and at other times to its fellow, and that often both are equally affected. May not the prevalence of head-symptoms at one time, and of syncope and faintness at another, be accounted for by the part of the organ implicated? When the right ventricle is softened and wasted, comatose symptoms may be looked for, in consequence of the interruption to the free discharge of blood *from* the brain: when the left ventricle suffers, then syncope may be expected, from the want of full and free circulation *within* the head; while, when the chambers of both sides equally participate in the degeneration, the circulation may be feeble and slow; but it will not be liable to those disturbances which are likely to arise from the balance of power being lost between the two sides of the heart.

3. *Shortness of breathing* is a symptom frequently observed in those labouring under fatty heart; but it was not present in either of our cases. It has been already remarked, that Dr. Chalmers continued to the last to ascend heights with wonderful facility; and Dr. Hunter informs me, on the best authority, that Dr. Abercrombie, during the autumn which preceded his death, was in the habit of ascending the hills in the neighbourhood of his summer residence, without experiencing any difficulty of breathing; and all, who were accustomed to meet him professionally, must remember the quick and alert manner in which he mounted to the bed-room floor, in cases of sickness. It has, however, been noticed, that an experienced observer had, on one occasion, and that a few days before his death, remarked that, in ascending the steps of his own house, Dr. Abercrombie was breathless. It

was the first and the only remark of the kind; and perhaps it is right to mention, that it was made at a time when Dr. Abercrombie was recovering from a bronchial attack, which had confined him for a day or two to the house. But we must expect dyspnœa in cases of softened and degenerated hearts; it is not, however, a constant symptom, and, even when present, may be found to be connected with other coexisting hindrances to the free circulation through the lungs.

4. *Præcordial pain* is another of the characteristic symptoms of this disease of the heart; and certainly has been acknowledged by many who have fallen victims to it. But it is a remarkable fact, that in the case both of Dr. Abercrombie and of Dr. Chalmers it was entirely wanting. The former was sensitively alive to every morbid feeling; the latter was not indifferent to suffering, but, with the exception of the præcordial uneasiness which for several days affected Dr. Abercrombie during the illness which we have referred to as occurring three years before his death, he was never known to complain of pain, nor had he at any time the least suspicion that he was the subject of cardiac disease; while, in the instance of Dr. Chalmers, I cannot call to recollection the smallest complaint of pain, anxiety, or distress in the region of the heart. Both had the coronary vessels extensively diseased; but neither suffered the symptoms of angina pectoris, unless it were in the moments which preceded dissolution.

5. *Functional derangement of the liver and chylopoietic organs* has been noticed as a constant attendant on this form of heart disease. Hasse informs us that, so far from being a merely local morbid condition, as some pathologists believe, it is the result of various affections in other organs; and, though not manifested by any specific local symptoms, its presence may, nevertheless, be inferred with tolerable certainty from collective symptoms referable to other parts of the body. Thus he mentions that, in functional disturbance of the larger organs of secretion, and especially of those engaged in the elaboration of venous blood, we meet with fatty encumbrance of the heart in its second stage; the anormal condition being then conjoined with other changes, all dependent more or less directly upon hepatic or pulmonary disease, or, at any rate, indicative of venous plethora.[1] Various morbid conditions of the liver are noticed among the collected cases of Dr. R. Quain; and in the instance of Dr. Chalmers this part was also found diseased. It was the organ, especially in his later years, which was most readily disturbed, being quickly influenced by errors in diet, or by stimulating beverages; hence he was led to abandon the use of wine and fermented liquors, and to confine myself entirely to water. An interesting fact in his history, which he communicated to Dr. Begbie, bears upon this subject,—namely, that the continued use, for a few weeks together, of a mixture of spirits, water, and sugar [*toddy* ?], was invariably attended with a manifest increase of fat, which subsided on the disuse of the stimulating drink. This fact, taken in connexion with the circumstance of fatty heart being frequently found in those addicted to the free use of spirits, may lead to the suggestion of prophylactic measures in the case of those who appear to labour under that disease.

6. *The state of the pulse* cannot be depended upon as a diagnostic mark of fatty heart. In some cases it has been found irregular, in some weak, in others slow; but it is subject to much variety, according to the complications of cardiac disease which concur with this degeneration of the muscular fibre. In both Dr. Abercrombie and Dr. Chalmers the natural pulse was soft and weak; it was never irregular, nor at any time of such a character as to raise any apprehension of organic disease. Hence, in neither case was auscultation employed as a means of discovering the physical signs which

[1] Hasse, Dr. C. E. Pathological Anatomy (Sydenham Society's Translation), p. 169.

are said to belong to fatty degeneration. Admitting, however, the discovery of a feeble impulse, a feeble first sound, and extended præcordial dulness,—signs which the state of the heart after death might have led us to infer existed during life,—still these, when combined with any general signs recognised during a long course of years, could not have led to a distinct and satisfactory diagnosis; while, taken in connexion with the age of the individuals, their pallid complexion, and tendency to obesity, they give room for the conjecture, that the great organ of life in both, was yielding, through the progress of time, to those organic changes which mark the decay of its structure, and foretell the not distant cessation of its long-continued functions.

CANCEROUS TUMOUR OF THE NECK IN A CHILD.

A case of this unusual description is thus related by Dr. Gibb, Physician to the Montreal Dispensary.

Case. On the 14th of February, 1850, Madame F— called upon me for advice about her little boy, aged 5½ years, with a tumour in his neck. His history was as follows: When about three months old he had ascites, with œdema of the arms and chest, which after some time disappeared without treatment. His health continued good until he was two years of age, when he became delicate and sickly. When about three and a half years old, he fell upon the pavement and struck the front part of his chest, fracturing the middle of the sternum, which some time after united, but with angular deformity, the projecting angle being considerable. He was at this time treated by an eminent surgeon, who recommended suspension of the body by the arms, from the steps of a ladder, to correct the deformity, and at the same time put him upon tonic treatment. When about four years of age, a small tumour, less than the size of a marble, was noticed on the right side of the neck, near the angle of the jaw; it commenced slowly to increase, and after the lapse of six months attained the size of the yelk of an egg.

He was treated for it by as many as six or seven physicians, and had taken a large quantity of medicine from each: he took iodine internally as well as locally, which his mother thought reduced the tumour a little, or kept it stationary for a time. It had, however, continued to grow up to the present time, and has assumed a large size. On the 1st of January, 1850, he had an eruption about the face and head, which turned into sores; and on the 14th of February there were some red patches about the face, the remains of the sores.

Symptoms and Appearances. A tumour existed on the right side of the neck, proceeding from the parotidean region, downwards towards the clavicle, and extending in the direction of the shoulder. It approached also the mesian line of the neck, and would appear to encroach slightly upon the larynx, but not extending within the lower jaw. The tumour formed a considerable prominence, and a number of small veins were running in different directions over its surface. On the left side of the neck the external jugular was very prominent; not so on the right side. Three or four small red patches were present on the right cheek and chin; the countenance was pale and flabby; the eyes prominent and full of expression, which, with the shape of the head, denoted precocity of intellect; and the general appearance was what would be at once pronounced by an observer as scrofulous. On examining the tumour, however, we found that it was lobulated, and divided into two portions, a superior and an inferior; the former was partly anterior to the inferior at its lower part, and the latter extended outwards and downwards upon the neck towards the shoulder. The tumour was freely moveable in every direction; the integuments were not at all adherent to its capsule; and the consistency of the tumour was that of scirrhus, as it was impossible to make any impression upon it by firm pressure, from its firm and hard character; and

scarcely any pain was induced. The glands on the opposite side of the neck were not affected, nor were the glands in any other part of the body. The sternum was curved forward, and the chest anteriorly was prominent and rounded ; in other words, pigeon-breasted, said to be produced here by the occurrence of former fracture. The general health appeared to be good. There was no perceptible lesion of any internal organ.

The child had been seen and carefully examined by my friend Dr. Wright, and we coincided in the opinion as to the propriety of removing the tumour by the knife. The parents would not immediately consent to the operation, preferring to get further advice as to the expediency of this treatment.

I will here remark, that an operation was justifiable at this time, from the nature and character of the tumour—its peculiarly fibrous hardness, which was opposed to its being scrofulous ; its great mobility, and superficial situation over the deep cervical fascia ; its circumference being well defined, none of the deeper structures of the neck being either adherent to, or engaged in the diseased mass ; and the patient's health being good, without any internal complication, for after a careful examination of the thoracic and abdominal viscera, no lesion could be detected.

At a later period, however, one of the abdominal viscera became engaged, no doubt owing to the contamination of the circulating fluid by the malignant disease.[1]

On the 28th of February, I again saw the little fellow, and found the tumour very slightly increased in size. He was suffering from diarrhœa, for which I prescribed some powders. The parents had not made up their minds as to what they should do, as they said other gentlemen whom they had seen had declared an operation inadmissible.

On the 5th of March, the tumour appeared to be still further increasing, and spreading in a direction downwards and inwards.

On the 15th of May, for the first time, he began to complain of pain in the abdomen ; and on examination a hard body was felt, roughened or tuberculated on the surface, extending from the superior part of the left lumbar, towards the middle of the umbilical region, and which proved to be hypertrophy of the spleen. The liver was of normal dimensions, and the kidneys were healthy, as the urine presented nothing unusual. From this time to the 28th of June, the tumour kept slowly increasing in size, and extending in a direction further upwards and downwards, becoming more adherent near the angle of the jaw, and pushing the head towards the left side. He suffered at times from spasmodic cough, with occasional fits of dyspnœa, expectoration of frothy mucus, and a dislike to have anything around his neck. He, however, ate well, and slept comfortably.

During the months of July and August, nothing material was noticed in the progress of the case, excepting visible increase in the size of the tumour, and further enlargement of the spleen. He did not suffer from any pain ; but his cough was much more troublesome, requiring special treatment. On the 2nd of September, he complained of pain in his stomach and legs. He was unable to lie on his left side, from a sensation of choking being produced. He at this time also had frequent and severe fits of dyspnœa, almost amounting to suffocation ; he had alternate chills and flushings ; he was still able to sit at the door, although very weak, and was up till within two days of his death. Many of the symptoms mentioned continued to recur, with the addition of œdema of the hands and arms, and dysphagia. On the day previous to his death, he was seized with symptoms of choking, with congestion of the face and neck ; and the dyspnœa was so great, that the surgeon who was called in wanted to perform tracheotomy, which the parents would not consent to.

---

[1] This fact is supported by the observation of Heller, in his *Pathological Chemistry of Cancer*, where he has shown the contamination of the blood in that disease, and has given a microscopic analysis of the blood in ten cases.

He continued to get worse, and died at half-past seven a.m., on the 19th of September, without a convulsive movement—carphology, however, existing a few hours before death.

The Necropsy was performed on the 20th, thirty-three hours after death, assisted by Drs. Peltier and Fenwick.

External Appearances. Colour of skin almost that of marble, perfectly blanched and smooth ; rigor mortis slight in degree ; tumour in neck very much sunken, and apparently diminished in bulk ; extremities emaciated.

Tumour. On making an incision several inches long through the skin, in the long axis of the tumour, it was found that it was not adherent to it, throughout any part of its circumference. It (the tumour) was moveable, but was firmly bound down to the deep cervical fascia. It was formed from an apparently enlarged gland, with others also enlarged attached to it, like bundles of grapes, and extending upwards under the lower jaw, forwards and inwards, towards the mesial line of the neck, one lobule pressing rather firmly against the middle of the trachea ; others extended backwards, and the bulk of them downwards towards the base of the neck and within the clavicle. On carefully dissecting away the greater part of this diseased mass, the attachments posteriorly and below were found very persistent, and required some effort to remove with care. The subclavian vein was pushed forwards, and the inferior part of the tumour lay immediately over the sac of the pleura. The sheath of the common carotid was pressed upon, and on dissecting the base of this tumour, the phrenic nerve seemed to emerge from almost the substance of a part of the tumour itself. The mass, as a whole, weighed about two pounds. On making a section through the centre of the tumour, it was with some difficulty that the scalpel could be made to cut, so hard and fibro-cartilaginous was its nature ; the glandular appearance did not exist, but it was replaced by what resembled true scirrhus, both in texture and consistence, and in general appearance. The smaller appendages to this mass were not quite so hard on section, but no tuberculous substance was seen ; nor, in fact, did a single gland that was examined present any scrofulous character.

The microscope here proved a great auxiliary in clearing up the true character of the tumour. Portions from the large scirrhus mass presented a well-marked fibrous structure, the fibres partaking of rectilinear arrangement ; between these appeared round cells and molecular granules ; some of the former were nucleated and some fusiform, not distinctly caudate, but possessing one or more nuclei, with an occasional nucleolus. The fibres were in parts interlaced with one another in one portion under examination, with small nucleated cells in the meshes. There was a little juicy exudation from the section of the tumour, but a very few cells were free on the field of the microscope. The smaller appendages of the large tumour presented nothing marked from the ordinary glandular structure.

Thorax. The angular curvature of the sternum outwards was particularly striking. The lungs, bronchi, and pleuræ were perfectly healthy ; three ounces of dark straw-coloured serum were present in the cavity of the right pleura, and about an ounce in that of the left. The pericardium contained two ounces of serum, and was, together with the heart, quite healthy. There were no abnormalities, either in form or texture, in any of the great vessels arising from the heart.

Abdomen. On pushing aside the small intestines, the spleen, enormously enlarged, was presented to view. It was irregularly nodulated, of a mottled crimson colour, with circular white patches scattered on its surface. It was exceedingly hard and resisting to the knife ; and a section showed the dark structure of the spleen itself, with white lines scattered throughout, and numerous circular sections of hard tubercles in various parts, varying in size and colour, the largest about half an inch in diameter. Some of these tubercles, under the microscope, showed granules free and in clusters ; fat

globules, large circular cells containing granules, very much resembling the compound granular corpuscle of Hughes Bennett, and most probably the result of inflammation ; and a number of melanotic granules, but no globules. The spleen weighed two pounds and a half. The liver was healthy, but of a sea-green colour, from decomposition ; there were about four white spots scattered over its surface, showing the existence of tubercles, the size of small peas, extending into the substance of the gland. The gall-bladder was nearly empty, and shrivelled up. The stomach, large and small intestines, mesentery, and mesenteric glands, were quite healthy ; so also were the kidneys, which were rather pale. The bladder was filled with urine. The head was not examined.

Remarks. Madame P—— has had five children, and all are dead excepting the last born, in May 1850. The first child, a boy, died of teething, at the age of nine and a half months ; the second, a girl, died at the age of eighteen months, with sores about her face, body, and abdomen ; the third, also a girl, died of cholera in 1849, at the age of six and a half months ; and the fourth, the subject of this paper, at the age of six years, with a cancerous disease. The mother states that all have had vomiting and purging of blood before death, more particularly severe in the third child ; and up to the period of illness in each, they were fat and healthy children.

On examining into the hereditary predisposition, I find that Madame P.'s maternal grandmother died of phthisis, at the age of 36. Her maternal uncle died of the same disease at the age of 29. Her mother is still alive and in good health, and all her relations, and those of her husband, are perfectly healthy. Madame P—— herself possesses a mixed temperament of the nervous and lymphatic, is very pale, but looks healthy. She says that she has been delicate since the age of six years, and suffers a good deal when pregnant from a feeling of choking. She tells me that she has had an inflammation eight times, for which she has been bled and otherwise treated, and she has had the cholera twice. Her husband is labouring under dyspepsia, which is undermining his health, and has suffered from hæmorrhoids for the last sixteen years. His father died at the age of 60. Cancer has never been known in the family.

I have entered minutely into these details, as the case had been seen during life by a number of professional men in this city, some of whom had pronounced it scrofula. The diagnosis, however obscure, was cleared up by the microscope, which showed the presence of the elements of cancer.

As to the difficulty experienced in diagnosing tumours, I might refer to many high authorities upon the subject ; but will content myself with relating the following case, which will show that oftentimes the most able surgeons will hesitate before pronouncing an opinion. When I was a pupil of the Hospital of La Charité, in Paris, and following M. Velpeau, a girl from the country, aged nineteen, was admitted on the 23rd of August 1848, with a large tumour, situated over the upper portion of the right scapula, and extending as far as the shoulder. Before this eminent surgeon reached the bed, a party of pupils and young surgeons (including myself), of different nations, were examining the case, and pronouncing an opinion as to what class the tumour belonged. Three or four young men (British surgeons) agreed with me as to the tumour being fibrous, and waited until M. Velpeau should reach the bed, to tell who were right. To our astonishment, he would not say what the nature of it was ; but made up his mind to remove it by operation, which he did some days after, when the tumour was found to be, and pronounced so by himself, of a genuine fibrous character.

Although cancer does not appear to have been existing in the family as an hereditary disease, we must consider the origin of it here as influenced, to a certain extent, by the health of the parents, which appears to have produced an effect on all the offspring.

That it is very rare in childhood, is supported by the testimony of writers on this disease; but cases are reported where it has occurred in infancy, without any known hereditary taint. In Dr. Walshe's work on Cancer, is a table showing the absolute mortality from cancer, in both sexes, and at various ages. In a grand total of 3,036 cases, there were two cases under one year; three at one year; five at two years; one at three years; one at four years; five between five and ten years; and five between ten and fifteen years of age. Of 9,118 cases occurring between 1830 and 1840, in Paris and its environs, and published in a tabular form by M. Tanchou, and quoted by Dr. Walshe, there were twenty-three cases between the ages of one and ten years. M. Lebert, in the second volume of his *Physiologie Pathologique*, says: "Quant à l'âge dans lequel les affections cancéreuses se montrent le plus fréquemment nous n'en avons trouvé aucun exempt. On sait que l'encéphaloide de l'œil n'est pas une affection très-rare chez les enfants. Nous avons vu une fois une encéphaloide du poumon chez un enfant de sept mois, et un autre fois encéphaloide du rein chez un enfant de quatre ans."

Dr. Berg has, during his residence in Vienna, discovered carcinomatous induration of the entire pancreas in a new-born child. The post-mortem in the case reported, revealed the presence of a few tubercles in the liver and spleen, shewing the coexistence of cancer and tubercle together, but not in the same organs. Lebert adduces three cases in which both products coexisted; and Dr. Martin, of Munich, has recorded a similar case in the *Lancet*. [*British American Medical and Physical Journal.*]

DR. LAYCOCK ON A NEW EPIDEMIC EXANTHEM.

Dr. Laycock has published, in the *Medical Times* for March 8, 1851, a clinical lecture on an affection which he considers as a *new epidemic exanthem*. About a year and a half since, he first observed the disease among the patients and domestics of a large private asylum; and even the children of the matron suffered. The robust were affected as well as the feeble. Concurrently with the boils, there was sometimes an ecthymatous affection of the skin. The disease was not fatal in any case. Dr. Laycock believes it to be epidemic over a great part of England.

The disease is mainly characterized by a succession of boils on various parts of the body, of various sizes, from a bean to a walnut. First there is a small hard pimple, with, perhaps, a vesicle or circlet of vesicles on the top. This itches; the top is scratched off; when it is found that there is a small tumour in or below the derma, which becomes larger, inflamed, very painful, and at last suppurates, with an erysipelatous blush about it, and in bad cases with phlyctænæ. A number of these occur in succession on various parts of the body, but principally on the fore-arm, leg, and nates. Occasionally there is a vesicle only, which quickly puts on the appearance of ecthyma; and in one case at the York Dispensary (in a child), there was just one large livid-looking phlyctæna, as large as a crownpiece, very like gangrene. Sometimes there is a solitary boil, large, angry-looking, and mischievous as a carbuncle. An aged lady, who came under his notice, had one of these on the mons veneris; and sometimes even the minor specimens are not to be distinguished from carbuncles. Very often, after they have sloughed and healed, they leave an indurated condition of the skin and subcutaneous cellular tissue.

The eruption, whatever form it may assume, has a definite period of duration, and continues from two to six weeks. The furuncular form is not always more chronic than the ecthymatous, but is so for the most part; the exceptions being those cases in which the patient is cachectic. It is not, however, dependent at all upon a cachectic condition, for it occurs in robust

men and in very healthy children. Nevertheless, the cachectic suffer more from the disease, and perhaps they suffer also in greater numbers. In some instances we may clearly trace the localization of the boils to some local cause; for example, a crop will break out round a blister, or round another boil, if it be poulticed much, or round a burn. In one case, they occurred on the neck, thorax, and upper arm of a young woman who had irritated her throat by the inunction of the iodide of potassium ointment; and in another, chronic psoriasis seemed to have been the exciting cause. Dr. Laycock suspects that any local irritation of the skin is sufficient to induce the disease in an individual within the sphere of the epidemic.

Dr. Laycock believes that this eruptive disease occurs under the following forms. 1. There may be a solitary boil, presenting, for instance, a phlyctenoid character, with inflammation of an erysipelatous character, extending down the arm to the wrist, and upwards towards the shoulder. 2. A solitary phlyctæna, or several. 3. Several boils, varying in size and character up to carbuncles, without any other cutaneous disease. 4. Boils, with ecthyma, eczema, or impetigo; but much more frequently with ecthyma. 5. The boils differ, in leaving or not leaving behind them an induration of the skin and subcutaneous tissue.

Dr. Laycock is of opinion that this epidemic is essentially a blood-disoase, caused by some specific poison. What that poison may be, and what its origin, are altogether uncertain; it may be from the atmosphere, or from our food, as American flour for example, or from the flesh of tainted cattle, or may be generated within the body by atmospheric peculiarities; or it may be a contagious *materies*, originating in the first instance with brutes, and then transmitted from one individual to another. If it be the latter, as seems most probable, then he thinks it is *strictly* contagious, like glanders or syphilis, and not infectious also.

During several months past, there has been an epizootic prevalent in Yorkshire, affecting horses and cattle. In the latter, the mouth and throat are so inflamed that the animal cannot eat, or the hoofs come off. The same disease is prevalent in Shropshire. It seems to correspond with the epizootic *Maulweh* and *Klauenseuche* of the Germans, and is accompanied with an aphthous eruption. According to Levitzky, persons attending on cattle attacked with this disease, or something similar, which he terms, "angina catarrhalis", were affected with an inflammatory *rheumatic* fever (not with an angina catarrhalis), accompanied with a pustular eruption, and abscesses and ulceration of the lower extremities.

In treating this furuncular disease, little more is required, in ordinary cases, than to let it run its course, which is completed in three or four weeks. An occasional purgative and warm bath will be useful in allaying inflammatory action, and perhaps diminishing the number of boils. Two grains of calomel with rhubarb, colocynth, or scammony, twice a week, will be useful: in the more severe cases, the mineral acids and vegetable bitters must be added, and a good diet; the liquor of the amorphous sulphate of quinine in full doses, with dilute nitric acid, has been found useful. In all cases, however, purgatives and the warm bath are beneficial. Cataplasms, fomentations, etc., are not of much service. So soon as suppuration is established, a free incision should be made into the boil, and then the water-dressing applied: care should be taken that the pus do not flow on the adjoining skin, and (as in erysipelas) that the sponges, etc., be not used by other patients or persons.

[Dr. Laycock correctly describes what has attracted our attention for several recent successive seasons—an unusual prevalence of boils. The disease has this year been very prevalent in London and the neighbourhood. EDITORS OF LONDON J. OF MED.]

DIFFERENTIAL DIAGNOSIS OF THE DIFFERENT KINDS OF GENERAL PARALYSIS, BY THE AID OF GALVANISM LOCALLY APPLIED.

In the *Annales Médico-Psychologiques* for October 1850, p. 603, there is an interesting paper on this subject by M. Brierre de Boismont.

The author thinks that there exist two species of general paralysis, which differ completely in their nature and their seat. The first species of these progressive paralytic cases, without alienation of mind, exhibits, as its essential character, a weakening, a diminution, and an abolition of irritability, more marked in proportion to the greater duration of the disease. This alteration may begin in a muscle, or in a limb, generally in the inferior extremities; then it attacks, successively, all parts, and reaches the tongue. In many cases, the autopsy, made with the greatest care, has revealed no lesion in the brain or the spinal cord, in spite of the long duration of the disease. M. de Boismont cites the case of a lady in whom first the left upper extremity, then the lower, and, successively, those of the other side, lost their power. The fingers were contracted, and it became difficult for her to hold objects; walking was effected only incompletely. The paralysis reached the tongue, and the patient pronounced, with slowness and hesitation, the words suggested by her mind. Sensibility was preserved, the intelligence was unimpaired; the disease lasted more than a year. The digestive functions were well performed; the urine and the fæces were under the patient's control. The electrical apparatus produced no contraction in the lower limbs. The tibialis anticus, the peronæi and the flexors, remained immoveable under the influence of the current. This phenomenon was remarked in a less marked degree in the muscles of the superior limbs; the muscles of the trunk were feebly contracted. To this case another is added, of a patient who died under the care of M. Andral, with all the symptoms of general paralysis, without mental aberration, which had lasted for more than a year. In this case, irritability was completely annihilated, although he could still execute some movements. Consciousness remained unimpaired to the end. The autopsy, made with care under the superintendence of M. Andral, revealed no alteration; and a microscopical examination, made by M. Lebert, exhibited only a fatty deposition in some of the muscles of the thigh. The muscular fibre of the muscles of the leg, in which irritability was extinguished, shewed no alteration. It was interesting to contrast these results with those furnished by the examination of the general progressive paralysis of the insane. M. Boismont and M. Duchenne accordingly instituted experiments upon three paralytic insane patients, who were paralytic in different degrees. The first had only an intermittent stammering; the second was at the second period, but considerably emaciated; the third, who had been paralytic for several years, stood with difficulty, and was no longer able to answer questions. In all three, irritability existed in a marked degree. These experiments were repeated at the Bicêtre, and the patients were selected indiscriminately, among the most advanced cases, the most aged, and those who had kept their beds for several months. Irritability was ascertained to exist in the six cases examined, two of whom had arrived at a great degree of emaciation, and even of atrophy, especially in the inferior extremities. Almost all these patients passed their fæces and urine under them. It may therefore be advanced, as a constant circumstance, that in cases of general paralysis with mental alienation, there is preservation of irritability. M. de Boismont remarks that, with regard to the seat of general paralysis, it is impossible to admit that it can always be localised in the nervous centres. There are cases of this disease which depend upon the spinal cord; others, upon the great sympathetic. There are some which are *peripherical*, and several which are not connected with any appreciable lesion of the nervous centres; and there are a certain number of cases which depend upon disease of the brain.

HYDATIDS IN A LUNG.

Dr. Hérard relates the folllowing case in the *Union Médicale* for January 25, 1851. He believes that it may be interesting, from its rarity.

Case. Catherine R., aged 61, was admitted into the Hôpital de la Charité, on November 25, 1850. Although of a weak constitution, she had enjoyed pretty good health till within the last few years. She had lived in a cold, damp place, but had never had rheumatism, nor any acute chest affection. For some time, she had been troubled with loss of breath and palpitation on exertion. Three years ago a cough commenced, which continued almost incessantly, and was accompanied by the difficult expectoration of scanty sero-mucous sputa. For the last fortnight, she had been every night attacked by dyspnœa, which had compelled her to remain sitting up.

On admission, she presented the appearance of a person in whom the blood-making process was imperfectly performed. The face was of a pale bluish colour; the lips were livid; the fingers presented the same appearance, especially at the level of the nails; the lower limbs were slightly œdematous. The chest was prominent; the respiration short and frequent; there was cough, and scanty expectoration of tolerably viscid sputa. On percussion, there was increased resonance on both sides in front; behind, and laterally, on the left side, the sound was very clear in the lower fourth, but there was perfect dulness in the three upper fourths of the lung; on the right side, there was increased resonance throughout. On auscultation, the breath-sound in front, on both sides, was rough under the clavicles, but feeble in other parts, and mixed with sonorous rhonchus; on the right side, posteriorly, there were sibilant and sub-crepitant rhonchi, with feeble vesicular expansion; on the left side, behind, there were some sub-crepitating rhonchi at the base, and the respiratory murmur was absent in the upper three-fourths of this side, but there were here no rhonchi nor *souffle*. The præcordial dulness did not seem increased in extent. The heart's impulse was strong and extensive; the apex beat in the epigastrium. The sounds were obscured by the sibilant rhonchus; but the double sound seemed free from any valvular murmur. The veins of the neck were dilated, especially on the left side; the pulse was 90, small, equal, and regular. There was cephalalgia, lividity, and general weakness; the tongue was white, the appetite good; there was no nausea or vomiting, and the bowels were regularly open. The patient died on the day after admission, without presenting any other symptoms beyond an increase of the debility and lividity.

Post-Mortem Examination, thirty-six hours after death. On opening the chest, there was no appearance of disease in the left lung. The heart was enlarged, and the free edges of the mitral valve were remarkably thickened. Both lungs were emphysematous in a high degree; both, especially the right, were in a state of general sanguineous infiltration; and, when cut into, gave exit to a large quantity of dark blood. The whole incised surface was of a red colour, and presented, in some parts, the appearance of pulmonary apoplexy. The left lung was adherent, at the side, to the wall of the chest; and, on attempting to destroy the adhesions, there was discovered a white, soft tumour, protruding through an opening torn in the lung towards its base. On enlarging this aperture, the interior of the lung was found to be hollowed out into a large cavity, filled by a vesicle of about the size of an ostrich's egg.

The *vesicle* or *hydatid* was solitary; it was white, soft, and friable, like hardened white of egg. It was not adherent to the cyst, which separated it from the lung. Its thickness was between five and six *millimètres*. The exterior was slightly granular; the internal surface was smoother, and several superimposed fine layers could be raised. The vesicle was distended by a transparent, colourless liquid, in which the naked eye could detect small grains, which, under the microscope, were recognized as echinococci. The

internal wall of the vesicle was free from the granulations which are frequently met with, but which, in this case, were free in the liquid enclosed in the hydatid.

The cyst was thin, forming a sort of serous membrane, behind which was observed the dark pulmonary tissue, destroyed by the pressure of the vesicle. In front, and especially towards the root of the lung, as well as at the base, there was a tolerable amount of pulmonary tissue ; but posteriorly, (in the three upper fourths), and laterally, the lung was reduced to a layer of a few *millimètres* in thickness ; and, in some parts, its tissue had entirely disappeared, so that the cyst rested immediately on the pleura. Under the cyst, the vessels and bronchial tubes were seen in the form of whitish lines.

The other organs presented no remarkable appearance. Most of them were congested ; they contained no hydatids.

HYDATID CYST IN THE LIVER, OPENED BY CAUSTIC POTASH, AND INCISION : RECOVERY.

We quote the following from *L'Union Médicale* for 24th April 1851.

Case. In June 1849, M. Morisseau was consulted by a butcher in the neighbourhood of La Flèche, who had complained, for eighteen months, of oppression and dull pain in the abdomen. There was a swelling in the right hypochondrium, very distinct to the touch, almost insensible to pressure, and presenting distinct fluctuation. The patient had not been previously aware of this enlargement. His appetite was good, he slept well, and walked easily. There was not the slightest appearance of jaundice. Nothing remarkable was observed in the heart, lungs, or urinary organs ; there was no œdema.

Being convinced that there was a collection of liquid in the liver, M. Morisseau applied caustic potash to the tumour, and incised the eschar. Instead of a flow of liquid, there appeared at the opening a membrane presenting the characters and thickness of the pellicle of an egg deprived of its shell. Believing that it was a portion of intestine, he tried to push it back ; but, in spite of his efforts, a soft, elastic body, of the size and shape of a hen's egg, soon escaped. This was shortly after followed by about fifteen other hydatids, of all sizes, from that of a pea to that of a nut. They were all transparent. The patient was kept in the horizontal position ; and, during three days, above sixty individual hydatids escaped ; they were apparently all sound.

After the last acephalocyst had been evacuated, the dressings were found every day saturated with bile, recognizable by its colour and smell. Its quantity was estimated at about half-a-pint in twenty-four hours. This continued to escape during nearly six weeks, without apparent inconvenience to any function. The patient became thin ; but he continued to walk about, and to eat and drink. In two months, the wound was perfectly cicatrized, and health was restored, the individual at the same time gaining flesh.

In connexion with this case, the editor of *L'Union Médicale* makes the following—

Remarks. About two years ago, M. Boys de Loury communicated to the Society of Medicine, in Paris, a case almost similar to the one just related. The subject was also a butcher ; and Dupuytren has observed, that hydatids of the liver are principally found in persons of that occupation. But of fifty-eight cases which we have examined, not one individual was in any way connected with the preparation of articles of food.

M. Morisseau enquires where the hydatids were enclosed ; and why so much bile escaped ? They could not have been, as he supposes, in the gall-bladder ; for then bile should have been evacuated from the first. It is more probable that the cyst was very close to it, and that a fistulous communication was established between them, which gradually closed. The prompti-

tude with which M. Morisseau acted, probably saved the life of the patient. By delay, the cyst would have opened into some internal organ, and have compromised life. The mixture of the bile with the liquid in the cyst, might have produced very severe, if not mortal, inflammatory symptoms.

BISMUTH AND BELLADONNA IN GASTRALGIA.

The late Professor Caizergues, of Montpellier, was accustomed to combine belladonna and bismuth in the treatment of nervous affections of the stomach: and M. Artaud, observing the number of rapidly cured cases in the hospital of Saint Eloy, regards this combination as possessing a truly specific action. The formula which M. Caizergues commonly employed was the following: sub-nitrate of bismuth, 10 grammes (154½ grains); extract of belladonna, 1 gramme (15½ grains). To be divided into forty pills, of which two are to be taken morning and evening. M. Artaud believes that these pills are efficacious, not only in purely nervous affections of the stomach, but also in those which depend on some constitutional cause, as chlorosis. *Revue Thérapeutique du Midi*, as quoted in *Journal des Connaissances Médico-Chirurgicales*, January 2, 1851.

DISEASES OF THE LUNGS PRODUCED BY CONGENITAL SYPHILIS.

M. Depaul lately communicated to the Academy of Medicine in Paris a memoir on a manifestation of congenital or intra-uterine syphilis, consisting in a hitherto unobserved alteration of the lungs. The affection to which he refers was first described by him in 1837; since which time he has had opportunities of observing about twenty cases. The lungs were sometimes indurated from infiltration with pus; and sometimes there were true purulent collections, with walls of greater or less thickness, enclosing in their meshes a liquid of the same nature. These pulmonary lesions seldom existed alone: there were most usually, in the skin or elsewhere, indubitable proofs of syphilis. (Abridged from *Gazette Médicale de Paris*, 3 May 1851.)

STRYCHNIA IN PARALYSIS.

M. Moreau, of Tours, has recently given Strychnia in his practice at the Bicêtre to three patients. The period which had elapsed since they had been attacked was respectively eight, four, and two years. In all the cases, the dose was gradually increased till shocks, more or less decided, were experienced; this required from two to eighteen *millegrammes*, from about 1-22 to 1-11 of a grain, in eight or nine days. As soon as M. Moreau obtained the shocks, he gradually returned to minute doses. In none of the three cases was a radical cure obtained; but in all there was a very perceptible amelioration. It is important to mention, that the remedy seems most applicable to cases of long-standing: for the degree of improvement in M. Moreau's cases corresponded with the time which had elapsed since the seizure. [*Annales Médico-Psychologiques*, Oct. 1850.]

In *hysterical paralysis*, Dr. Vigla reports that he has obtained excellent results from strychnia. [*Gazette des Hôp.*, 14 Sep. 1850.]

In *paralysis of the bladder* Dr. Lecluyse effected a cure by a *strychnia injection*, after the medicine had failed to do any good when administered internally. The following is the formula:—strychnia, 300 centigrammes; alcohol, enough to dissolve the strychnia; water, 50 grammes. On each occasion 30 grammes were injected, and, after four injections, the paralysis entirely ceased. [London Journal of Medicine for Sept. 1850, p. 882. *Annales de la Soc. Méd. d'Emulation.*]

We advise all who use strychnia to proceed with extreme caution, to watch carefully the effects of the early doses, and never to give it in the form of pills.

SURGERY.

CASE OF INTERNAL STRANGULATION BY A DIVERTICULUM OF THE ILEUM.

M. Bouvier related to the Academy of Medicine in Paris, on April 8th, 1851, a case of Strangulation by a Diverticulum of the Ileum, and exhibited the pathological specimen.

Case. A woman, aged 24, had been delivered for some days, when she felt dull pains in the abdomen. M. Bouvier ascertained the presence of a hard moveable tumour, of the size of a fist, in the right iliac fossa. It appeared to have no connexion with the uterus; and this was confirmed by an examination made by M. Huguier. The patient, otherwise feeble, had not had a stool for several days, and was somewhat relieved by some slight purgatives, when, on the second of April, after eating a large quantity of potatoes, she was seized with colic and vomiting. The next day, the symptoms increased in the evening, and the patient died on the 4th April, after having had a profuse alvine evacuation, with all the symptoms of acute peritonitis.

On *post-mortem* examination, besides other lesions of more or less standing, there was found to be a strangulation of five or six loops of the ileum, by an appendix of the same intestine. This diverticulum, after describing a spiral twist completely round the intestine, was implanted by a many-pedicled extremity, in the iliac fossa, where there existed numerous adhesions between the intestines, the epiploon, the appendages of the uterus, and the abdominal walls. It appeared that, previously to the attack of acute peritonitis, there must have been chronic inflammation in the cellular tissue around the uterus, and in the right broad ligament; and that, in consequence, adhesions were produced between the uterine appendages and a loop of intestine, with the abdominal wall; the many-digitated extremity of the diverticulum had also, for some time, contracted adhesions with the walls and the large epiploon, forming a ring in which a considerable portion of the ileum had become strangulated. [*Gazette Médicale de Paris*, 12 April 1851.]

MECHANISM OF STRANGULATION BY INTESTINAL DIVERTICULA.

Dr. J. Parise communicated to the *Académie de Médecine*, on Jan. 28, a memoir on the mechanism of strangulation by knots, more or less complete, formed by diverticula of intestine.

The effects produced by diverticula vary according as they belong to one or other of the following categories. In one case, the diverticulum seizes a loop of intestine, and forms a simple knot in the form of a rosette; in the other, two loops are formed. The author detailed five cases, of which four belonged to the first category, and one, which was unique, to the second: he then considered the mechanism by which strangulation is effected in these cases.

Two anatomical conditions are necessary for the production of strangulation by diverticula. 1. A certain length of the diverticulum, at least eight or nine *centimètres:* 2. Sufficient calibre at its free extremity. The diverticulum must be long enough to embrace the loop of intestine; and its extremity must be capable of dilatation, so as to fasten the knot. The first condition is necessary for the formation of the knot; the second for its tightness. The physiological conditions are doubtless to be sought for in the irregular movements of the intestine, and of its appendix, in combination with external impulses.

In forming the knot with a simple loop, the diverticulum seizes the loop of intestine which is immediately above or below it, turns round it, passes

beyond its origin, and ends in a dilated extremity. In the other form, the diverticulum embraces two loops of intestine, one above, the other below its origin.

The following are the conclusions at which Dr. Parise has arrived:

1. Diverticula of the ileum may become knotted round the intestine so as to produce strangulation.

2. The strangulation presents itself in two forms, the loop being sometimes single, and sometimes double.

3. In the first form, the diverticulum surrounds the pedicle of a loop of intestine, and forms with it a simple *nœud à rosette.*

4. In the second form, two loops are strangulated, one above, the other below the origin of the diverticulum.

5. In both cases, the firmness of the knot is due to the dilated extremity of the diverticulum; and this dilatation is the key to the strangulation.

6. The symptoms which result are those of internal strangulation. Their attack is sudden, their progress rapid, and their termination constantly fatal.

7. The symptoms which should cause us to suspect the presence of internal strangulation are: sudden invasion of pain in the right side of the abdomen, between the umbilicus and the cœcum; tympanitic distension limited to that region; absence of all circumstances which would lead one to suspect the existence of foreign bodies, of pseudo-membranous bands, of organic contractions, of invagination, etc.

8. Strangulation by diverticular knots, like every other internal strangulation which follows a rapid course, is beyond the reach of art.

9. If the progress be less rapid, if it be probable that the strangulation is at the lower part of the ileum, and if there be not general peritonitis, an operation should be performed.

M. Parise promises to explain, in a future communication, the operation which he proposes for the relief of these cases. [*Gazette Médicale de Paris*, February 1, 1851.]

ON A FORM OF SANGUINEOUS PELVIC TUMOUR IN FEMALES.

M. Nélaton calls attention to a peculiar form of tumour, hitherto much neglected by authors. These tumours are usually preceded by some general symptoms, as *malaise*, disturbed menstruation, pains in the hypogastrium, and a feeling as if a heavy body were about to escape from the vagina. The abdomen is sometimes enlarged, and a hard, very painful tumour is felt by the patients in the hypogastric region; in other cases, they are not aware of its existence, and, when it is pointed out to them, they cannot say how long they have had it. On examination, the abdomen is found to be inflated, tense, convex, and painful. The decubitus is dorsal, with the thighs flexed on the pelvis. By palpation in the hypogastrium, a tumour is felt in the cavity of the pelvis *(petit bassin)*. This is sometimes confined within its inner border, and sometimes extends as high as the umbilicus: it is commonly inclined towards the right iliac fossa. The tumour is small, rounded, without knotty projections, and becomes gradually lost in the pelvic cavity; it is scarcely moveable, and is of pretty firm consistence, sometimes presenting fluctuation. On vaginal examination, there is found, between the uterus and rectum, a tumour, advancing towards the orifice of the vulva in proportion to its size. It is smooth, rounded, and fluctuating, varying from the size of a large goose-egg to that of a thumb, without pulsation or expansive movement: it may narrow the vaginal canal so as only to permit of the passage of the index finger. The uterus may be raised by the tumour, so that its body is felt above the pubes; and its neck may be so much elevated, that the fore finger can only with great difficulty reach it.

The treatment of these tumours consists in evacuating the liquid which

they contain. M. Nélaton proposes to employ a large trocar, and then a simple lithotome to enlarge the opening. The patient is placed on her back, on a tolerably high bed, with her legs and thighs bent, as in the position for lithotomy. By introducing a speculum into the vagina, the tumour is discovered towards its base, at the posterior wall. The point where fluctuation is most apparent having been discovered, a long trocar is introduced, with a canula sufficiently long to allow the escape of the matter, which is liquid, black, and viscid, like treacle. The incision ought generally to be three *centimètres* in extent; it should be made in the axis of the vagina, so as to avoid wounding the uterine arteries. It should also be carefully ascertained that there are no arteries on that part of the wall in which the incision is made. The incision should neither be too wide nor too deep, so that the rectum may be avoided. When, some days after the operation, the liquid which escapes has become purulent and fetid, disinfectant injections should be employed. The strength of the patient should at the same time be supported by quinine and other tonics. The walls of the tumour should also be explored with a scoop *(curette)*, so as to remove any adherent clots, which may be in a state of commencing putrefaction. [*Gazette des Hôpitaux*, Feb. 8, 1851, as quoted in *L'Union Médicale*, Feb. 11, 1851.]

OBSTETRICS.

CAUSES AND TREATMENT OF SECONDARY HEMORRHAGE AFTER PARTURITION.

A valuable paper on this subject is published, in the *Dublin Quarterly Journal of Medical Science* for May 1851, by Dr. M'Clintock. It specially relates to those cases in which any profuse sanguineous discharge from the vagina takes place, commencing six hours after a patient has been delivered, and within a month from this epoch.

Causes. I. *The presence of a portion of placenta in the uterus*, is one of the most frequent causes. This is observed to be most generally the result of artificial removal of the after-birth, especially if the operator be incautious or timid, but it may happen in the most skilful hands, when the cause of detention has been morbid adhesion of a very intimate nature. This seldom produces any untoward symptoms until the third or fourth day; but then, if it be not cast off, many may be developed. The author specially speaks of the probability of uterine or crural phlebitis, and of secondary hæmorrhage, supervening. This latter seldom comes on until the fourth or fifth day, and it may not do so until the second week, or later; in fact, so long as a fragment of placenta remains in the uterine cavity the patient can have no security against a recurrence of the sanguineous discharge, and the period at which it may come away is extremely variable; sometimes not until the third week, or later.

II. *The retention of a coagulum, of any size, in the uterus beyond the first few hours after delivery.* In this case, the immediate or exciting cause of the effusion is probably some accidental displacement of the clot, or excitement of the arterial system. The symptoms very much resemble those produced by the retention of part of the placenta: but there is less of the fœtid smell, and no shreds or portions of the placenta are expelled, whilst the coagulum, if entire, has exactly the shape of the uterine cavity.

III. *Relaxation of the uterine fibres.* This is admitted to be a point, in regard to which it is difficult to obtain direct evidence; but several cases are referred to which favour such a view; and it is observed that, from the numerous and strongly marked sympathies of the uterus, it is reasonable to conclude, that for some days, at all events, after parturition, there may be an interruption of its contractile function, through the influence of deep mental impressions, or certain bodily derangements.

IV. *Local or general disturbance of the vascular system,* whether induced by premature exertion, the incautious use of stimulants, agitation of mind, local determination of blood, or whatever tends to increase the force of the vital current. A knowledge of this cause points out an additional reason for enjoining strict rest, and the horizontal position, when the womb remains unusually large at a late period after delivery.

V. *Great fœcal accumulation,* in the lower part of the great intestine, is mentioned on the authority of Moreau ; who mentions cases in which the hæmorrhage ceased upon his mechanically removing the excrementitious matter.

VI. *Functional Disorder of the Liver.* Dr. Ayre has known this form of uterine hæmorrhage to have been produced by functional disorder of the liver, and to have been suppressed by the administration of calomel. At first he ascribed the effect of the medicine, in relieving the hæmorrhage, to the evacuation of morbid matters from the bowels ; but further, and more accurate observations of the colour and condition of the stools, of the course of the disorder and effects of the remedy, convinced him that such was not the case ; and that the effect arises from an alteration of the morbid actions of the liver, and other organs of digestion. The cause is said to be in this case a sudden interruption of the secreting function of the liver, which gives rise to an abdominal venous congestion, in which the uterus may participate ; and the indication of cure for the hæmorrhage is to restore the biliary secretion. Calomel, he observes, is the medicine which must be mainly relied on ; and it must be given in small, but frequently renewed doses, following them up by aperients, or combining them with minute doses of opium, when a diarrhœa is present, and continuing them until some impression is made upon the complaint, even at the risk of slightly affecting the mouth.

VII. *Inflammatory Ulceration of the Cervix Uteri.* According to Dr. Henry Bennett. The author thinks that the frequency of this, as a cause, has been somewhat exaggerated ; for, first, Dr. Bennett observes, that inflammatory ulceration of the cervix is of frequent occurrence during pregnancy, which cannot be said of lochial menorrhagia ; and, in the second place, the author remarks, that he has strong reason to believe that many patients, affected with chronic inflammation and ulceration of the os uteri, had been delivered under his care, who nevertheless had no subsequent attack of hæmorrhage, or extraordinary amount of lochial discharge. It is suggested, however, that it occasionally happens, especially in first labours, that the os uteri is slightly fissured by the passage of the child, and that this might put on an ulcerous character, and thus give rise to hæmorrhage during the puerperal state.

VIII. *Presence of a polypus attached to the uterus,* which may for the first time give evidence of its existence soon after delivery. Various authorities and cases are referred to on this point.

IX. *Inversion of the uterus,* it is said, has been long recognised as a cause of hæmorrhage post partum. "I feel strong reasons", says Mr. Crosse, "for believing, as has been repeatedly stated by authors of high reputation and great experience, that partial inversion exists more often than is generally suspected, and is the cause of hæmorrhage after the delivery of the after-birth. The loss so produced ordinarily takes place immediately upon its removal ; but it may be repeated, at uncertain intervals, subsequently, if the malposition be not rectified." The hæmorrhage may continue for hours, or first show itself after several hours, or even after a day or two.

Besides the causes which are considered to be the ordinary causes of hæmorrhage after parturition, the author refers to several cases in which it had occurred from causes of an unusual character ; and in most of which its precise origin was only discovered on a post-mortem examination. These are highly interesting, and cannot be read without considerable advantage.

Treatment. The general principles of treatment, in all these cases, are to tranquillize the circulation, both local and general; to promote the condensation of the uterine structure, and to use such constitutional and local remedies as may tend to favour coagulation at the mouths of the vessels.

The first and second indications are to be fulfilled, by enjoining perfect rest in the horizontal position, and withholding stimuli of every kind. The patient must lie on a hard bed, in which her hips cannot sink, and firm pressure, with occasional friction, should be made over the uterus, so as to promote its contraction, and expel any coagulum that might have formed within it. At the same time, the ergot of rye should be administered with as little delay as possible, since, in these cases, our chief reliance for the suppression of the discharge is on this remedy. Fifteen or twenty grains of the fresh powder may be given in the first instance, and repeated, if necessary, in forty minutes or an hour. When the discharge is not very profuse, five or six grain doses may be given every three or four hours; but in every case, the first dose should be a full one. If the patient be alarmingly reduced by hæmorrhage, caution is necessary respecting it; as, it is observed, that the ergot exercises a decidedly sedative influence upon the system. Cold applications should not be applied on slight grounds for the first day or two after labour, for fear of inducing uterine inflammation; but otherwise there is no objection to them. A cold enema, with a spoonful of common marine salt, is recommended; as is also a moderate dose of the sedative solution of opium.

Should these means fail, recourse must be had to the tampon or plug. We must not forget the possibility of internal hæmorrhage occurring during its use; which is to be guarded against by securing a pad over the uterus with a well applied binder, and occasionally examining the hypogastrium. The author adds, that a silk pocket handkerchief forms about the best material for a plug that can be used.

When the hæmorrhage manifests a disposition to recur, recourse must be had to constitutional means for its suppression; and the state of the liver and bowels must be looked to. Acetate of lead receives a very qualified recommendation. Sulphate of zinc, in doses of one or two grains, with a quarter or half a grain of opium, may be tried, as also the dilute sulphuric, and gallic acid; the latter, in one case, acted very promptly and effectually in suppressing the bleeding. The tincture of Indian hemp, and oxide of silver, are also spoken of in favourable terms.

If the hæmorrhage is of an atonic or passive character, tonic and chalybeate medicines are recommended; and a very admirable combination of them, it is said, is the sulphate of iron, sulphate of quina, dilute sulphuric acid and water; to which, if required, a little Epsom salts may be added. A strong infusion of bark and elixir of vitriol, with a small quantity of tincture of cinnamon, was recommended by Dr. Leake. In extreme cases of uterine hæmorrhage, full doses of oil of turpentine, sometimes as much as an ounce, with half that quantity of almond oil for a dose, was found of much benefit by Mr. Griffith of Wrexham.

When there is ground for suspecting that the hæmorrhage results from the retention of a portion of placenta, or clot, a vaginal examination should at once be made, as speedy removal of the foreign body is desirable; but great caution is necessary in removing a portion of placenta when it is adherent, or when this proceeding would be attended with much difficulty.

When ulcerative disease of the cervix is the probable cause of hæmorrhage, the treatment does not essentially differ from that of ordinary cases of inflammatory ulceration of the cervix uteri. Common prudence will suggest the advisability of postponing topical applications to the os uteri, until the system has recovered from the effects of parturition. If a fortnight, or three weeks, can be allowed to pass over, so much the better; then we may begin

to touch the surface of the ulcer with the nitrate of silver, or some other caustic. A mild injection may be thrown into the vagina. Early and active counter-irritation should also be made over the sacrum. Constitutional treatment must in every case be employed, and the system restored as speedily as possible to its most normal state.

In hæmorrhage depending upon a polypus, much circumspection is necessary in deciding upon its removal, as many unpleasant consequences have attended the operation under these circumstances, on account of the increased size and vascularity of the uterus, and the tendency still existing to inflammation and phlebitis. Hence, it is recommended to forego all attempts to extirpate the tumour as long as possible, or until the woman has recovered from the effects of parturition. These cases, however, require very different treatment according to their different circumstances. Many cases are referred to in illustration.

MANAGEMENT OF YOUNG WOMEN BEFORE THE FIRST PERIOD OF MENSTRUATION.

Dr. E. J. Tilt, in the *Provincial Medical and Surgical Journal*, March 19th, 1851, has the following sensible remarks on this subject.

"During the stage of puberal development, nature is for some time attempting to inaugurate a most important function, and those efforts which should be assisted, are often frustrated by girls themselves, who—taken by surprise—are either in total ignorance, or are insufficiently prepared to adopt such means as will favour its establishment, and ensure its due reappearance. If mothers, independently of professional assistance, are, from ignorance, unprepared to give their daughters advice at this period, or withhold it from mistaken notions of delicacy, the most serious consequences may ensue, as is obvious from the result of a statistical inquiry in which I have been long engaged. In several hundred women, I find that twenty-five per cent. were unprepared for its appearance; thirteen girls out of the twenty-five were much frightened, screamed, or went into hysterical fits; and six out of the thirteen thought themselves wounded, and washed with cold water. Of those frightened, the flow was checked in seven instances, was never restored in three, and the general health of all was seriously impaired. Of those who washed with cold water, two succeeded in effectually suppressing the flow, which only reappeared after several years, and then at irregular intervals, and was never healthily established.

"It may be said, that it is only in the lower classes that girls are kept in darkness relative to what is of so much importance; but this is perfectly groundless. The same bad management equally prevails in the middle and the higher classes of society. Girls in affluent circumstances and well educated, are, I know, often taken by surprise at the appearance of this function. Mothers who, in other respects, act judiciously, will not condescend so far to bow down to the infirmities of their nature, as to give the necessary advice to their daughters; but when the event happens, they are too often turned over to the management of an unmarried attendant. I have been also informed by a lady presiding over a large establishment of young ladies, that the pupils who are placed with her after the appearance of that function, are never properly prepared for the event, and that many are so ignorant of themselves, that it is extremely difficult to prevent their washing with cold water, in the endeavour to remove what they naturally view with feelings of disgust.

"When girls—young though they may be—suffer habitually from headache, and when this is accompanied by dulness of intellect, dizziness, heaviness, and great tendency to sleep, it is most probable that menstruation is impending, particularly if these head symptoms coincide or alternate with pains in the back and lower limbs. Additional confirmation may also be

found in the change which may be observed in a girl's character. If she no longer take pleasure in the society of children, shun companions of her own age, and find in solitude charms hitherto unknown;—if uneven in temper, she is at times as usual—cheerful and expansive, at others cold, peevish, fretful, and even mischievous, but afterwards atoning for these inconsistencies by the most fervent expressions of tenderness;—if her eyes shine with unwonted lustre in mixed society, having lost the innocent confiding expression of children, who boldly dive into the depths of other eyes, because they know not of dangers to be encountered there;—in fact, when woman has become unto herself a mystery, the medical attendant should lose no time in advising the mother not to let her daughter be taken unawares, and to prepare her to expect what is the common lot of all her sex, so that its first appearance may neither be arrested by the alarm naturally felt at something hitherto inexperienced, nor by the dangerous application to which, in their ignorance, they may imprudently have recourse."

Dr. Tilt strongly deprecates the use of emmenagogues, employed to hasten the menstrual flow, and gives several judicious directions, as to the clothing, and mental culture of the young female.

SUCCESSFUL (?) CASE OF TRANSFUSION OF BLOOD IN UTERINE HÆMORRHAGE.

The following interesting case was recently communicated to the Surgical Society of Paris by M. Nélaton.

Case. A young woman, aged 20, arrived at the full period of utero-gestation, was seized, in December 13, 1850, with labour pains. In consequence of the occurrence of hæmorrhage, she was removed to the Hospital of St. Louis, and placed under the care of M. Nélaton. The interne, M. Dufour, having ascertained that the hæmorrhage was caused by placenta prævia, judged it proper to hasten delivery. After having perforated the membranes, he gave the patient three doses of ergot of rye, each containing a gramme (15½ grains), at intervals of a quarter of an hour. The hæmorrhage still continued abundant; and an attempt was now made to turn the child, but the rigid neck of the uterus opposed an insurmountable obstacle. The vagina was then plugged; but this only partially restrained the flow of blood. The hæmorrhage had continued from 3 P.M. to 10 P.M., when M. Nélaton was sent for. He arrived at 11 o'clock, and found the patient in a state of immobility, with general coldness and extreme pallor of surface, the lips being as white as the skin; the eyes were half open, and presented the peculiar expression indicative of approaching death. The pulse at the wrist could scarcely be perceived, and the breathing was hurried. The first indication being to complete delivery, M. Nélaton performed the operation of turning. When the child was removed, two assistants compressed the aorta. With the view of more securely preventing hæmorrhage, M. Nélaton introduced his hand into the uterus to provoke it to contract. Warm cloths were placed round the body, and hot bricks were applied to the limbs, to recal the heat, and reanimate the circulation, which was now almost at a stand still. The patient took a quantity of warm wine with sugar, and afterwards some wine of Bagnols. In spite of all these means, the patient remained in the same state, and the pulse ceased to be perceptible for some minutes at a time.

At the end of an hour and a half, M. Nélaton determined to perform transfusion of blood. The interne on duty, M. Dufour, a strong and healthy young man, furnished the blood, which was received into a vessel heated to about 35 degrees centigrade, and immediately transferred to a hydrocele syringe, at the same temperature. In the mean time, M. Nélaton laid bare the cephalic vein, and applied two ligatures, one to interrupt the circulation and to prevent the return of a small quantity of blood through the lower end

of the vessel; the other, to guard against the introduction of air during the operation. The walls of the vein were divided obliquely, so as to form a V-shaped flap. The froth of the blood having been carefully expelled from the syringe, it was introduced into the vein. The piston was slowly pushed down, and the contents of the syringe, about 200 grammes. were impelled into the vein: this was immediately followed by the injection of an additional hundred grammes. None of the phenomena mentioned by authors, such as cries or local pain, were observed. The patient had some wine and water administered, and was ordered to keep the trunk and limbs wrapped in hot cloths.

The next morning, the state of the patient was completely changed. The skin was warm and moist, the pulse well developed, the breathing easy, and the intellect clear. She complained of much lassitude, and of thirst. As she manifested a desire for food, some broth was given her. This state of improvement continued for several days, with every promise of a favourable termination, as the lochia, and milk-fever, had appeared in a normal manner. Pains in the abdomen appeared on the seventh day, and the patient soon died of puerperal metro-peritonitis. (*Bullétin Général de Thérapeutique*, 30 Dec. 1850.)

PSYCHOLOGY.

SUICIDE IN THE ASYLUM.

Dr. W. A. F. Browne, in his *Eleventh Annual Report of the Crichton Royal Institution for Lunatics* (Dumfries 1850), has the following interesting remarks:—

"Three of the melancholics were suicides; and all wished for death while they dreaded it. Two of these have resorted to modes of destruction of such a nature as to baffle ordinary precaution and vigilance, and to show that the cunning and ingenuity of despair emulate the suggestions of reflection. A lady was placed for safety in a gallery where the gas was inaccessible, the furniture strong and unwieldy, and the fire-place protected by a guard. During the temporary absence of the attendant, the cap, or its lappets, were inserted between the bars of the screen, brought into contact with the coals, replaced on the head, and allowed to ignite the whole dress. The gown was woollen, and did not burn rapidly, but all portions readily combustible were consumed; the scalp, ears, hands, and other parts of the body were severely injured; but the sufferer gloried in her achievement, expressed no pain, nor contrition, nor fear; but was as calm and ecstatic as martyrs who have courted a similar fate. She recovered to reprobate her preservers as the obstacles of her triumph. Another person, who is constantly under the eye of the attendant, who sleeps at her side, and in the centre of a well-occupied dormitory, who has no obvious instruments nor opportunities to accomplish her purpose, yet discovers substitutes, and, so far as she can, employs them. At midnight she silently and stealthily tears her night-dress, endeavours to choke herself by stuffing the shreds into her throat, and subsequently swallows them in large quantities. These expedients have been resorted to repeatedly. It is believed that a third stratagem was meditated by a patient who had been prescribed, and was aware that she had been prescribed, the ext. cannabis Indicæ, a narcotic poison, and who declined to take the medicine at the hour directed, but was anxious to carry it to bed, and there, it is suspected, to hoard the successive doses until a quantity sufficient to produce death had been accumulated. This dexterous plan is not original. It has been previously practised elsewhere by a melancholic; but not, as in this case, defeated. The impulse to destroy life, like other sanguinary impulses, is so powerful, so often aided by deliberation, so fertile in resources, that although it may be eradicated by treatment, and modified by vigilance, it

cannot be invariably baffled, while an article of dress is left, or the necessaries of life provided. It affects minds in the full possession of those powers which render its accomplishment inevitable, and which are best adapted to elude suspicion, to deceive affection, and to counteract the provisions and specific arrangements in an asylum."

CASE OF FEIGNED MADNESS.

The *Annales Médico-Psychologiques* (October 1850, p. 661) records the following case, which formed the subject of a trial in Bavaria.

On the 28th of July 1849, a shepherd, aged 17, was arrested on a charge of having committed a horrible assault upon a girl, seven years old, and of having afterwards assassinated her, by shooting her in the head. The accused, at the moment of his arrest, freely confessed that he had committed the two crimes, saying that he had been instigated to commit them by the devil, that it was the devil who had loaded the gun, who had put it into his hands, had directed it towards the head of his victim, and that he (the prisoner) had done no more than pull the trigger. It appears that this ridiculous defence is not considered extraordinary, by those who are acquainted with the absurd superstitions which still exist among the country people of Bavaria. When the officers proceeded the next day to the residence of the accused, to convey him before the magistrate, an entire change had taken place in his demeanour. Although he was a young man who had always been distinguished by his vivacity and intelligence, he now appeared to have lost all his physical and intellectual faculties. He could hardly stand up, and when by great efforts he succeeded in raising himself on his legs, he tottered, and his knees trembled under him; he could not move a single step without stumbling; his head was continually inclined either forwards or backwards, or fell sometimes on one shoulder, sometimes on the other; he uttered only isolated and incoherent words, and always stammered; he said that his hearing was very bad, and it was impossible to obtain from him any precise answer; lastly, he had entirely lost his memory, and he no longer recognized any one, not even his mother, with whom he had always lived. The magistrate selected two special physicians, MM. Windler and Zinck, to examine into the mental condition of the accused; and these gentlemen, after having carefully observed his conduct, unanimously came to the conclusion that the moral and physical state of this individual was feigned. This opinion was founded upon the following considerations:—that the imbecility, to the degree in which the prisoner seemed to be affected, was always innate; that there never was an example of a person so intelligent and healthy as the accused had been before his arrest, becoming suddenly imbecile and stupid; and that besides, the imbecility of persons who have not evinced it from birth, is at first very slight, and increases gradually and slowly. In consequence of this opinion, the prisoner was observed secretly and continually, and as no change was remarked in him, it was resolved to expose him to violent sensations, to ascertain whether the suspension of the faculties were real or not. To this end, fire-arms were discharged in the middle of the night, close to the outside of the wall against which his bed was placed. The prisoner uttered inarticulate cries, but without moving from his bed. Powerful douche baths were poured upon him suddenly, through holes bored in the ceiling of his cell; he was lodged in a hut, the roof of which was burnt during the night; and he was exposed to other trials, but nothing altered his impassibility. MM. Windler and Zinck, and several other physicians, persisted in their opinion that this young man was feigning imbecility; and he was ordered to be tried before the court of Augsburg. It was necessary to carry him to the court. He looked at first with a stupified air at all parts of the hall; then he relapsed into his ordinary state, placed his arms on the balustrade before the prisoners' bench,

rested his head upon his hands, and went to sleep. It was in vain to shake him; nothing would move him; and it was impossible to interrogate him. The crimes of which he had been accused, were already admitted by himself; and, having been proved before the court by the evidence of numerous witnesses, the presiding judges strongly inclined to the guilt of the accused. The defence represented that, considering the state of the prisoner, there was great probability that, in committing the two crimes for which he was called to account, he had no consciousness of what he was doing, and consequently he could not be considered a responsible person. The judges observed to the jury that, in their deliberations, they ought not to regard the present state of the prisoner, but to endeavour to ascertain if, at the moment of the perpetration of the double crime, he had acted like a sane person. The jury, after deliberating half an hour, brought in a verdict declaring the prisoner guilty, but with weak imputability (foible imputabilité), namely, *that there were very attenuating circumstances.*[1] The prisoner was condemned to three years' imprisonment, and he was taken away from the court in the same state of lethargy as that which he had exhibited during his trial; but he had scarcely returned to his cell, when he began to jump with joy at having escaped capital punishment. He said that, since his arrest, he had never ceased to enjoy good health for a single moment; that he had been throughout in perfect possession of his physical and intellectual faculties; and that he had played his part, in pursuance of advice which had been given him by one of his fellow-prisoners, on the very day when he was consigned to prison. This villain seems to have exhibited, during the long space of fourteen months, a strength of will and of perseverance of the most extraordinary character; and it is the more astonishing, as he was only seventeen years old.

MECHANICAL RESTRAINT IN THE PROVINCIAL ASYLUMS OF FRANCE.

In the autumn of 1850, Dr. Webster visited eight of the provincial asylums of France; and has since published in Dr. Winslow's *Psychological Journal* an interesting account of what he saw and heard. The paper abounds with valuable matter; and the following extract is particularly interesting:—

"The numbers show, that forty-four male lunatics, out of 1464 then resident, were in camisole, some being also otherwise restrained; thereby giving one in restraint to every 33¼ male inmates; or three per hundred. Amongst the females the proportion was larger; seventy-two out of the total 1902 resident patients, being under mechanical coercion; *i.e.*, one female in restraint to every 26¼ inmates; or 3·78 per hundred. In contrast with this report, I place an official statement of the practice at Bethlem Hospital, during the same period. At this establishment, where formerly the strait-waistcoat, with various kinds of personal coercion, were in even greater use, than on the other side of the English channel, *not one insane patient*, amongst an average population of 391 lunatics, was under constraint of any description, during the five weeks ending the 20th of last September: when I first visited that institution, after my return from the continent, and which five weeks embraced the whole time referred to in my narrative".

[We are no advocates for the strait-waistcoat when it can be avoided; but let it be remembered, that it is often a less irritating means of restraint than the personal violence and brawny grasp of "the keeper".]

[1] This verdict would never have been received in an English court of law. If the prisoner was of *weak imputability*, then he was not guilty of the crimes laid to his charge, and he ought to have been sent to a mad-house as a lunatic: if he was in his senses when the acts were committed, then he ought to have been executed. Editors of Lond. Journ. of Med.

DELIRIUM AND INSANITY DURING AND CONSECUTIVE TO ACUTE DISEASES.

In the *Annales Medico-Psychologiques*, October 1850, p. 586, M. Thore has written an article upon this subject.

The author regards pneumonia as one of the most common causes of insanity; and of twelve cases of acute diseases followed by delirium, no less than half were cases of pneumonia. He thinks that it and typhoid fever, are the diseases which predispose most to insanity. He relates two cases, in the first of which a pneumonia of the right lung, terminating by resolution, was followed by maniacal delirium; and, a year afterwards, the same patient was attacked by pneumonia, again terminating in resolution, but again followed by violent delirium with hallucinations: the result, however, being complete recovery, both from the pneumonia and the insanity. In the second case related by the author, the pneumonia and the insanity appeared to alternate with each other; for, on the occurrence of a decided amendment in the symptoms of the first disease, the patient was attacked with violent delirium, attended by hallucinations of sight and hearing, and by loquacity. These symptoms were relieved by baths, and opiates in large doses; but, with the return of reason, the symptoms of pneumonia reappeared. The patient, however, recovered from the pneumonia, and the delirium did not return. The author has also observed, that, in certain cases, the delirium is developed without any alleviation of the pulmonary symptoms; and the two diseases continue simultaneously. The third case is one of tonsillitis, attended by suppuration of the right tonsil; in this case, the pus was evacuated by an incision, and the patient was doing well; but he was attacked suddenly one morning with delirium, attended by hallucinations. He recovered under the use of mild opiates. In the next case, the delirium was developed during recovery from an attack of measles, in a man aged 27, who had never before or since manifested any symptoms of insanity, and who had never been addicted to intemperate habits. In this instance, the maniacal state lasted for twenty-four hours, and then it wholly disappeared. In the last case which is related, the patient was a boy of seventeen, who was attacked by typhoid fever, towards the termination of which several abscesses were formed in various parts of his body, and were opened. When the fever had ceased, symptoms of insanity began to appear, and his words and actions became strange and incoherent; although his bodily health improved, the disorder of the intelligence gained ground, and he was finally consigned to a lunatic asylum, where he died of cholera. The author concludes by remarking, that the form of mental alienation which succeeds acute affections, is very variable; most frequently it is only a fit of maniacal delirium, the duration of which varies, from fifteen or twenty hours to three or four days. It is violent, accompanied by great agitation, and with hallucinations of sight and hearing. It begins at the very moment when convalescence commences. It yields, in general, to a very simple treatment, or rather it is cured spontaneously. "We have often seen," says M. Thore, "individuals, who, in the hospitals where they had been treated for acute diseases, had been attacked with a fit of insanity, arriving at the Bicêtre perfectly cured, and not exhibiting the least disturbance of the intelligence. The cure had taken place during the removal." But although the delirium which occasionally follows such diseases as pneumonia and tonsillitis, is transient, that which follows typhoid fever is more serious and more lasting, as is well exemplified in the last case recorded by M. Thore in his very useful and instructive paper.

THE HOSPITALS OF LONDON. No. VI.

BY DR. CORMACK AND DR. SEMPLE, ASSISTED BY NUMEROUS REPORTERS.

THE VITAL STATISTICS OF HOSPITALS.

The following is introduced in this place, from the similarity of the general results to those of the London hospitals, as formerly alluded to in this department of the LONDON JOURNAL OF MEDICINE; and as illustrated by Dr. Webster in the present number.

GENERAL HOSPITAL AT VIENNA. The subjoined Statistical Reports of the General Hospital at Vienna for 1848 and 1849, are contained in the *Zeitschrift der K. K. Gesellschaft der Aerzte zu Wien* for November and December 1849, and Sept. and Oct. 1850. If we could obtain room, we should like to reproduce them entire, as excellent models for the compilation of similar returns from the London hospitals. In the mean time, we have combined some of the statistics regarding the mortality in the institution at Vienna.

Table exhibiting the Rate of Mortality in the Wards of the General Hospital in Vienna, during the years 1848 *and* 1849.

		Admissions.			Deaths.			Percentage of Deaths on Admissions.		
		M.	F.	Total.	M.	F.	Total	M.	F.	Gen. Av.
Medical Wards	1848	6980	4109	11089	1220	770	1990	17·47	18·73	17·94
	1849	6122	3792	9914	1053	847	1900	17· 2	22·33	19·16
Both years.....		13102	7901	21003	2273	1617	3890	17·34	20·46	18·52
Wards for Diseases of the Chest	1848	316	249	565	42	40	82	13·29	16·06	14·51
	1849	269	253	522	46	42	88	17· 1	16· 6	16·85
Both years.....		585	502	1087	88	82	170	15·04	16·33	15·64
Wards for Diseases of Nervous System..	1848	144	125	269	27	26	53	18·75	20· 8	19· 7
	1849	193	114	307	49	24	73	25·38	21·05	23·77
Both years.....		337	239	576	76	50	126	22·55	20·92	21·87
Wards for Cutaneous Diseases	1848	2186	722	2908	27	40	67	1·23	5·54	2·30
	1849	1719	664	2383	42	43	85	2·44	6·47	3·56
Both years.....		3905	1386	5291	69	83	152	1·76	5·98	2·87
Wards for Diseases of Women	1848	..	705	705	..	133	133	..	18·86	18·86
	1849	..	541	541	..	111	111	..	20·51	20·51
Both years.....		..	1246	1246	..	244	244	..	19·58	19·58
Surgical Wards	1848	2635	1187	3822	252	143	395	9·56	12·04	10·33
	1849	2205	959	3164	179	103	282	8·13	10·74	8·91
Both years.....		4840	2146	6986	431	246	677	8· 9	11·46	9·69
Syphilitic Wards ..	1848	1262	858	2120	1	4	5	0·08	0·46	0·23
	1849	1075	966	2041	6	3	9	0·55	0·31	0·44
Both years		2337	1824	4161	7	7	14	0·29	0·38	0·33
Ophthalmic Wards..	1848	455	285	740	2	1	3	0·43	0·35	0· 4
	1849	385	235	619	0	2	2	0·00	0·85	0·32
Both years.....		839	520	1359	2	3	5	0·23	0·57	0·36

The preceding table points out distinctly the remarkable influence which certain classes of affections exert, in augmenting or diminishing the rate of mortality. Thus, in the surgical wards, exclusive of those devoted to syphilis and ophthalmic affections, the average mortality for the two years was 9·69 per cent.; but, if to the surgical cases we add the syphilitic and ophthalmic, the rate of mortality becomes diminished to 5·56 per cent.

The statistics of the obstetric, children's, and lunatic departments at Vienna are separately given in other parts of the Report; but we shall at present confine our notice to those classes which are specified in the table.

The Reports of the Vienna Hospital are, moreover, valuable for the tabular view which they give of the relative mortality from each disease. We have reproduced the Vienna statistics, thinking that it would be interesting to those engaged in medical statistics, and might also serve as a model for similar documents in some of our institutions. With this view, we have combined the results for the two years in a single table, omitting the short commentaries which are appended to each anatomical group of diseases.

Statistical Table of the Cases admitted into the General Hospital at Vienna, in 1848 *and* 1849, *arranged anatomically.*

	Admitted.		Discharged.						Died.	
			Cured.		Relieved.		Not improved.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE BRAIN.										
Congestion	261	192	208	150	3	6	5	3	21	9
Inflammation	64	29	22	16	..	1	5	1	50	23
Tuberculosis	11	3	..	..	..	..	..	..	11	3
Apoplexy	71	70	8	11	5	3	4	6	43	35
Delirium	384	307	76	18	8	6	238	262	30	17
DISEASES OF SPINAL CORD AND NERVES.										
Inflammation	9	1	3	..	1	..	..	1	2	1
Intermittent Fever	1261	317	1169	286	9	3	9	1	14	6
Neuralgia	141	243	113	166	7	17	5	10	6	5
Convulsions	122	190	60	84	21	37	27	38	9	5
Tetanus	14	11	8	3	1	2	..	..	4	4
Paralysis	187	145	38	23	39	25	25	23	40	32
DISEASES OF ORGANS OF RESPIRATION.										
Catarrh	2614	1270	1975	955	68	45	36	26	301	127
Pleurisy	510	294	381	217	26	16	1	6	71	29
Pneumonia and Pleuro-pneumonia	694	440	500	261	10	13	3	2	140	120
Emphysema	118	40	8	7	43	22	14	1	23	6
Pulmonary Tubercles	1396	970	..	..	358	111	80	35	868	699
DISEASES OF HEART AND VESSELS.										
Endocarditis and Pericarditis	30	25	14	12	7	2	1	..	6	4
Organic Diseases of the Heart	117	188	..	..	53	66	12	20	39	69
Aneurisms	8	2	..	..	2	..	2	1	3	1
Phlebitis	9	18	1	8	7	5	..	2	..	3
Venous Swellings	20	..	17	..	1	..	..	..	1	..
Inflammation of the Lymphatics	52	13	35	9	5	..	1	..	4	..
DISEASES OF THE ALIMENTARY CANAL.										
Angina	253	230	230	206	2	6	1	4	6	2
Parolitis	17	8	11	9	..	..	..	..	1	..
Peritonitis	86	489	50	357	1	15	2	3	25	58
Gastritis	4	4	1	2	..	..	..	..	3	1

	Admitted.		Discharged,						Died.	
			Cured.		Relieved.		Not improved.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Gastric Catarrh	938	497	862	442	6	10	5	1	15	12
Degeneration of Stomach	17	16	..	..	1	2	3	2	9	9
Hæmatemesis	5	11	3	9	..	..	..	..	2	..
Intestinal Catarrh	433	272	338	235	7	1	9	..	40	23
Dysentery	33	25	21	15	..	1	..	..	9	5
Cholera	4	1	2	1	..	..	..	..	2	..
Lead Colic	10	..	8	..	..	..	..	..	..	..
Worms	7	15	5	11	..	..	1	..	..	..
Scirrhous Disease of Intestines	1	2	..	..	..	..	1	..	..	1
Prolapsus Ani	3	..	3	..	..	..	..	..	..	..
Hernia { Simple	73	41	57	13	6	3	2	2	5	1
Hernia { Strangulated	45	47	28	38	..	..	1	..	10	17
Hepatitis	12	11	12	6	..	1	..	..	..	2
Jaundice	47	34	36	30	..	..	1	..	9	4
Degeneration of Liver	10	8	3	2	3	..	1	2	3	2
Enlargement of Spleen	24	5	11	3	6	..	..	..	2	1
DISEASES OF THE URINARY ORGANS.										
Inflammation of kidneys	3	1	2	1	1	..	..	..	..	..
Granular degeneration of do	32	19	1	1	8	8	1	2	19	7
Diabetes mellitus	3	..	..	..	..	..	1	..	..	..
Catarrh and inflammation of the bladder	54	23	33	15	7	2	2	..	6	2
Paralysis of bladder	2	1	..	1	..	..	..	..	..	..
Calculus	18	..	11	..	..	..	..	..	3	..
DISEASES OF THE GENERATIVE ORGANS.										
1. Male. Orchitis	236	..	211	..	6	..	1	..	3	..
Hydrocele	45	..	34	..	3	..	1	..	1	..
Stricture	18	..	14	..	2	..	..	..	..	..
2. Female. Inflammation of uterus	..	79	..	48	..	8	..	1	..	18
Inflammation of ovaries	..	8	..	5	..	2	..	1	..	..
Inflammation of mammæ	..	63	..	43	..	5	..	1	..	3
Puerperal diseases	..	109	..	72	..	2	..	..	..	29
Diseased menstruation	..	280	..	162	..	17	..	20	..	48
Prolapsus uteri	..	45	..	21	..	7	..	9	..	3
Anteversion or retroversion of uterus	..	5	..	3	..	..	..	..	..	1
SYPHILITIC AFFECTIONS										
Blennorrhagia	1029	624	906	488	17	4	3	1	1	3
Ulcers	1523	776	1229	549	63	5	11	7	7	5
Secondary symptoms	417	643	293	481	24	4	7	5	9	9
DISEASES OF THE SKIN.										
Small-pox	754	688	637	553	1	..	..	..	53	67
Scarlatina	42	29	30	24	..	..	..	..	9	4
Measles	146	79	140	74	..	..	..	..	2	2
Itch	1552	218	1495	130	..	..	1	..	2	1
Pediculi	213	52	188	47	..	..	..	..	..	..
Non-contagious cutaneous disease { acute	204	85	184	76	5	2	..	..	2	2
Non-contagious cutaneous disease { chronic	699	246	538	146	59	34	17	4	7	8
Erysipelas	156	127	134	106	2	2	..	1	5	7
Excoriations	228	47	198	46	..	..	..	..	2	..

	Admitted.		Discharged,						Died.	
			Cured.		Relieved.		Not improved.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE CELLULAR TISSUE.										
Phlegmon	180	110	144	88	7	6	1	5	6	5
Gangrene	76	77	33	21	8	1	1	2	21	12
Abscesses	392	197	246	117	34	20	14	9	35	19
Fistulæ	45	26	24	10	3	6	4	3	9	..
Tumours	425	288	298	174	34	32	27	4	22	34
Degenerative growths	338	186	149	78	59	23	39	12	53	46
Malformations	158	66	83	37	12	4	3	6	13	8
Contusions and wounds	816	183	557	141	35	1	7	1	119	18
Bitten by rabid dogs	14	3	10	2	1	1	..	..	3	..
Bitten by healthy dogs	23	5	14	4	2	..	..	..	..	..
Burns	39	24	30	14	..	..	..	..	4	7
Frost-bitten	101	22	85	18	1	..	..	..	3	..
DISEASES OF BONES AND JOINTS.										
Osteitis	82	67	49	41	8	5	7	2	3	6
Fractures	277	147	176	85	13	9	3	8	22	16
Caries	293	138	64	20	58	20	39	26	75	37
Degeneration	39	26	9	7	6	6	4	3	4	3
Synovitis	358	156	272	110	22	11	6	6	18	9
Dislocations	45	15	24	15	7	..	2	..	..	..
Distortions	61	44	23	14	12	5	4	2	1	..
Inflammation of muscles	28	11	13	7	1	1	1	1	3	..
GENERAL DISEASES.										
Senile debility	63	161	..	..	17	10	9	42	29	70
Marasmus	81	163	..	..	..	..	24	59	43	76
Chlorosis	..	184	..	158	..	7	..	1	..	3
Gout and rheumatism	1168	870	952	615	28	52	27	32	35	27
Rickets	3	3	1	..	2	..	..	1	..	..
Scurvy	76	15	52	8	2	..	2	..	18	5
Typhus	1790	889	1317	639	8	4	5	9	329	185
Cholera	165	227	73	88	1	..	1	..	89	132
Scrofula	214	72	70	19	44	15	15	4	52	28
Dropsy	342	332	179	136	23	22	11	13	98	123
Lithiasis	16	..	12	..	..	..	..	..	..	..
Mercurial poisoning	7	1	6	..	..	..	..	..	..	..
Poisoning	1	5	1	3	..	..	..	..	..	2
Moribund	22	20	..	..	..	..	..	..	22	20
Feigned diseases	41	12	35	12	1	..	..	..	..	..

The nosological classification adopted in the foregoing tables, is not unexceptionable,—bronchitis, for instance, being evidently included under the terms "catarrh" and "pneumonia". The system which is carried out, however, is highly laudable ; and the reports reflect great credit on the zeal and ability of Dr. Carl Haller, on whom has devolved the labour of drawing them up. We hope, before a very distant period, to see reports, of at least equal excellence, emanate from the London hospitals.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

Among the Egyptians, Greeks, and Romans, the treatment of diseases of the eye was mostly in the hands of oculists. Hippocrates, Celsus, Galen, and the Arabian physicians describe many ophthalmic diseases well, and frequently give judicious rules for their treatment; but *medici oculariі* were at the same time numerous, and have continued so in modern times, to the latter part of the last century.

At this period, the anatomy and physiology of the eye were generally neglected byp hysicians and surgeons; and the treatment of its diseases was left to oculists, men, for the most part, very imperfectly educated, who relied almost entirely on external applications, and treated the eye as if it was unconnected with the rest of the body, and uninfluenced by the state of the circulation, and the condition of the digestive organs.

Germany first attempted to recall the attention of the profession to the neglected science, by the production of works of the highest merit, by university lectures, by opening ophthalmic wards in the General Hospital of Vienna, and by clinical instruction. Scarpa also greatly advanced the science by his labours in Italy.

In England a few distinguished surgeons, as Pott and Hey, had a well-merited reputation for their skill in operating on the eye; and Cheselden had, still earlier, added to his fame by giving sight to a young man supposed to have been born blind: but the first public institution for the treatment of Diseases of the Eye originated with John Cunningham Saunders in 1804.

Mr. Saunders was educated at St. Thomas's and Guy's,—at that time united hospitals. Here he studied ten years; during eight of which he was demonstrator of anatomy at the former hospital. In October 1804 he published the first proposal, made in England, of founding a dispensary for the cure of diseases of the eye and ear: and the proposal being sanctioned by the physicians and surgeons of the above-named hospitals, and encouraged by the public, the London Dispensary for curing Diseases of the Eye and Ear was opened in Charter-house Square on the 25th of March 1805; and patients were received under the care of Mr. Saunders and Dr. Farre. In 1808, however, the treatment of diseases of the ear was relinquished, and the name of the institution altered to that of the London Infirmary for curing Diseases of the Eye.

In founding the Infirmary, Mr. Saunders had two objects in view; to apply his knowledge of ophthalmic disease to the relief of the afflicted poor, and to communicate instruction to the medical student. In accordance with these views, the institution has, from its foundation, been open to all indigent patients, without any restriction; and, in 1811, pupils were publicly admitted to observe the diseases, and their treatment by the medical directors.

The institution had only enjoyed the benefit of Mr. Saunders' valuable services five years, when his incessant application destroyed him by apoplexy, in the thirty-seventh year of his age. His short career allowed him little opportunity of communicating his experience to the profession. He published, during his life, a work on diseases of the ear, and a paper on iritis; but the principal part of his recorded observations and opinions was edited, after his death, by his friend and colleague Dr. Farre, in a *Treatise on some Practical Points relating to Diseases of the Eye.* This valuable work contains essays on inflammation of the conjunctiva in infants; on inflammation of the iris, and the use of belladonna; on some of the more important terminations of ophthalmia, etc.; to which is added an account of the author's method of curing congenital cataract, by which he had succeeded in giving sight to 52 patients out of 64, of whom 38 were from two months to seven years old at the time of operation.

Dr. Farre has the merit of having taught the application to diseases of the eye of the same general principles of treatment, by which similar morbid

processes are controlled in the organs, and especially of introducing the mercurial treatment of iritis. Mr. Travers, Mr. Lawrence, and Mr. Tyrrell, in turn, succeeded to the chair from which Saunders had been removed by death: and the writings and lectures of these distinguished men, and the information acquired and communicated by their pupils, have accomplished, to a great extent, one of the grand objects contemplated by the founder of the institution, and have spread the knowledge of ophthalmic disease, and the benefits of that knowledge, over three parts of the globe. One of the most beautiful and accurate works that has yet appeared on diseases of the eye, is now in course of publication by Mr. Dalrymple, the present consulting surgeon of the hospital. It has more than once been introduced to the favourable notice of the readers of the London Journal of Medicine.

The number of patients has progressively increased from the opening of the institution to the present time. During the last four years the average annual increase has been 577, and during the last year 786.

NUMBER OF PATIENTS.

In 1805..... 600	In 1830.....5483	In 1849.....8686
1810.....2907	1840.....5520	1850.....9437
1820.....3704		

The total number of in and out-patients admitted from the opening of the institution in 1805, to December 31, 1850, is 217,706. The number cured of cataract and closed pupil during the same time is 2,361, including 306 born blind; no patient being entered a second time as a new case during the whole period of his attendance, however long. This is a tolerably large amount of good effected by a small institution in the city of London; but its utility is still more apparent from the good effected by its numerous ramifications. The total number of physicians and surgeons educated at this hospital to the end of 1850 is 1514. Many of these have themselves, or by their pupils, established similar institutions in Europe, Asia, and America. The first institution, on the model of the London Infirmary, was established at Exeter by Mr. Adams, afterwards Sir William Adams, on the joint recommendation of Mr. Saunders and Dr. Farre. The Royal Westminster Ophthalmic Hospital was opened after the death of Mr. Saunders in 1816, under the care of Mr. Guthrie, one of the earlier pupils. Others have since arisen in Dublin, Manchester, Birmingham, Salisbury, Bath, Brighton, Portsmouth, Plymouth, and in almost every large town in the kingdom. In 1850, the first Ophthalmic Infirmary was opened in Edinburgh; and in London itself two new Eye Infirmaries have in the last few years been opened and conducted by pupils of this hospital. In the year 1818, Mr. Richardson, one of its pupils, established the Madras Eye Infirmary, under the sanction and patronage of the Honourable East India Company, and during the first three years operated successfully on 381 cases of cataract. Subsequently Mr. Egerton and Mr. Jeaffreson were sent out by the East India Company to conduct similar institutions in Calcutta and Bombay. Assistant surgeon Richmond, of the 4th Light Dragoons, cured of cataract 789 inhabitants of Broach and Baroda in the short space of nine months.[1] Even in China, seven Ophthalmic Hospitals have been recently appointed. Meanwhile, other pupils have established the first Ophthalmic Institutions in the United States (New York), and in British and Spanish America.

In 1823, the Infirmary was removed from its original site to a new and more commodious building erected for it in Moorfields; and in 1837, the Queen having become its patroness, it was named the Royal London Ophthalmic Hospital. The present building is capable of accommodating eighteen in-patients. Nearly all the in-patients are admitted for operations, the majority being cases of cataract. Operations for cataract are usually performed on Friday, from the beginning of May to the end of October.

The hospital is supported by voluntary contributions, and is open daily to all indigent persons that require and seek its assistance. The average

[1] Bombay Courier, March 1827.

expense of each patient is less than two shillings ; and the total expense of 1850 does not at all exceed the average total expense of the last ten years, notwithstanding the number of patients has nearly doubled in that time. But the income of the hospital falls far short of its necessary expenses, which have seriously encroached on its small permanent resources. The deficiency of 1850 is stated to have been nearly £250. An earnest appeal has therefore been made to the public by the committee, with the view of obtaining such support as will maintain the hospital in a state of efficiency, and meet the increasing demands on its resources.

NORTH LONDON EYE INFIRMARY.

Clinical Notices. The *changeable weather* which has characterised this spring, has kept the cases of rheumatic and catarrhal affections above the average. Simple treatment by purging, counter-irritation, and astringent collyria, have generally sufficed to cure the latter ; but in two cases, obstinate ulcers ensued, and complicated the case ; eventually, the eyes recovered under the use of bark and soda, nitrate of silver collyrium two grains to the ounce, night and morning, and a blister kept open behind the ear.

The preparations of *super-phosphate of iron*, prepared by Mr. Greenish at the suggestion of Dr. Routh, have been tried with decided advantage. It appears to be a mild tonic, and possesses the peculiar recommendations of neither discolouring the fæces nor constipating the bowels.

Hordeolum, or "stye", has been singularly rife ; Mr. White Cooper has had twenty-six cases of this description in public and private, in the last two months, and all sufficiently bad to cause the patients to seek advice. Frequent fomentation with infusion of poppies, to which a portion of extract of opium has been added, and hot poultices with the same addition, afford the greatest relief; and where there is evidence of matter, the stye should be opened ; this should be done with a sharp lancet, and quickly, as the part is exquisitely sensitive.

Many persons are subject to small *tarsal tumours*, which cause them much annoyance. They appear to be due, in some instances, to constitutional derangement, one succeeding another with provoking pertinacity ; but they are not unfrequently a consequence of hordeol. If the troublesome little boil so called does not fairly suppurate and discharge its contents, the inflammation will pass away, leaving a small hard swelling ; the parietes of this are sometimes so tough as to require some force to pierce them with a sharp knife. The treatment in use at this Infirmary is to evert the lid, lay open the cyst, and rub its interior with a small button of nitrate of silver at the point of a fine probe ; some inflammation follows, with suppuration, and the cyst disappears. In small cysts, subcutaneous excision with a cutting needle answers well, and is less painful than the other proceeding.

Very bad cases of *lippitudo* occasionally present themselves, but yield to the following treatment. The raw ulcerated margin of the lid is lightly touched with nitrate of silver once or twice, and subsequently with sulphate of copper two or three times, at intervals of a few days ; the lids are anointed night and morning with the diluted ointment of the nitrate of mercury, and the general health attended to ; which latter is a matter of importance. The alum collyrium, four grains to the ounce, is a useful adjunct to the other treatment. Lippitudo and tinea are common disorders among the lower orders of the Hebrew persuasion.

It is a matter of importance not to use the tartar emetic ointment on the temple, as it occasionally leaves indelible marks, which are unsightly, especially in females. The croton oil liniment is preferable ; but that also occasionally produces considerable discomfort, by the irritation extending to the lids and face, and puffing those parts considerably. Blisters, the size of a shilling, applied to the temples, cause sufficient irritation for ordinary cases, are manageable, and can be repeated at short intervals. Albespeyer's paper,

and Brown's cantharidine tissue, are useful especially with the higher orders, who often have much repugnance to the application of an ordinary blister. With children a few threads of worsted, smeared with blistering ointment, and placed behind the ear, is a useful and efficacious mode of exciting counter-irritation.

Collodion. Mr. Bowman has spoken of the advantage afforded by collodion in the treatment of wounds in the neighbourhood of the eye. In this, Mr. White Cooper fully concurs, having seen the greatest advantage follow its use in operations for entropion. The following is an example. Mr. G., a large, stout farmer, seventy-three years of age, consulted Mr. C. for entropion, in 1849. It had existed during eight months, and the irritation of the lashes against the eye was very distressing. There was a redundancy of puffy, loose skin about the lower lids ; and the deformity was entirely removed by pinching up a fold of it. On the 2nd of July 1849, an elliptical piece of integument was cut away from the right lower lid, the edges carefully approximated, and two sutures inserted. The skin being then dried, collodion was applied ; as it dried, the contraction of the integument was most marked. On the 5th instant, only three days after, the collodion was removed, and the wound found to be healed, except at the points of the sutures. A similar operation was performed on the left eye, and three days sufficed for the union of that wound also.

The only objection to collodion is the acute smarting it causes when first applied to a wound ; but, as that passes away in a few minutes, it is a matter of little consequence. The great tendency to evaporate, which is characteristic of collodion, is best counteracted by turning the bottle down, with its neck in water.

MORTALITY IN THE LONDON HOSPITALS.

The following very valuable article appears in the instructive weekly publication of the Registrar-General for May 17th.

"The table below illustrates two methods of exhibiting the mortality of hospitals and public institutions with rapidly changing populations. The cases which passed through each hospital were returned by the resident officers ; the average number of resident sick was deduced from five quarterly enumerations ; and the mean term of residence, in days, was obtained by multiplying the hospital population into 365, and dividing the product by the number of cases.

"It will be observed that in 1850, 11 of the general hospitals of London had 2736 resident patients, and that 2200 deaths took place in the year ; the mortality on the population was therefore more than 80 per cent. The patients only remained, on an average, 34 days in hospital ; 29,161 passed through the wards ; and the mortality was therefore 7·54 per cent. in the 34 days. About 92 in 100 who enter leave the London hospitals alive.

"The average number of lunatics, in eight of the large asylums, was 3,451 ; the deaths in the year 1850 were 380 ; the *annual* rate of mortality was therefore 11 per cent. But the patients remained more than two years (2·21) in these asylums ; and only 1,565 were discharged recovered, relieved, unrelieved, or dead ; consequently 24 in 100 cases terminated fatally, and of 100 who enter, 76 leave the asylums alive.

"In the *Fever Hospital* there were 19 deaths to 100 cases under treatment on an average 26 *days*, which implies that the rate of mortality was 256·76 deaths annually to every 100 patients constantly resident (100 occupied beds). In the *Consumption Hospital* 23 deaths occurred in 100 cases under treatment about 107 days ; the rate of mortality implies, therefore, that among a population consisting exclusively of persons labouring under consumption, the mortality would be 78·82 per cent. *annually.*

"The one column (5.) shows the mortality of such cases as are sent to hospitals, not during their whole course, but during the term of treatment : the

other column (6.) exhibiting the mortality out of a given number of sick during a given time (a year), indicates the intensity of the mortality in different diseases and hospitals.

"All the cases of illness in the army, slight as well as severe, are treated in the military hospitals: to the civil hospitals only cases of some severity are admitted; the mortality is therefore very different. Some of the differences in the mortality of other hospitals arise from the same cause; others are accidental.

HOSPITALS OF LONDON. 1850.

Number of Cases treated—Patients Resident, or Population—Deaths—Term of Residence—Deaths to 100 *Cases—and Annual Deaths to* 100 *of the Sick Population.*

	Total Cases Discharged, Cured or otherwise, or Dead, 1850.	Average Term of Residence in Hospital.	Average Number of Sick in Hospital.	Deaths Registered in 1850.	Deaths to 100 Cases.	Deaths to 100 Beds, assumed to be continually occupied by Patients.
GENERAL HOSPITALS.		Days				
St. George	3006	32	264	231	7·69	87·50
Westminster	1658	31	141	138	8·32	97·87
Charing Cross	1101	33	98	70	6·36	71·43
Middlesex	2568	36	256	189	7·36	73·83
University College	1131	35	108	128	11·32	118·52
Royal Free	766	22	46	37	4·83	80·44
King's College	1305	29	105	132	10·11	125·71
St. Bartholomew	5557	32	491	372	6·69	75·76
London	3870	30	317	278	7·18	87·70
Guy's	4037	43	476	357	8·84	75·00
St. Thomas	4162	38	434	268	6·44	61·75
Total (or average)	29161	34	2736	2200	7·54	80·41
HOSPITALS FOR SPECIAL DISEASES.						
Small Pox	314	17	15	56	17·83	373·33
Fever	513	26	37	95	18·52	256·76
Lock	397	48	52	..	..	..
Consumption	289	107	85	67	23·18	78·82
Total (or average)	1513	46	189	218	14·41	115·34
MILITARY AND NAVAL HOSPITALS.						
Grenadier Guards'	1320	22	80	29	2·20	36·25
Coldstream Guards'	878	15	36	17	1·94	47·22
Scots Fusilier Guards'	602	36	59	11	1·83	18·64
Royal Ordnance	4977	21	285	38	·76	13.33
Dreadnought Ship	2121	25	144	78	3·68	54·17
Total (or average)	9898	22	605	173	1·75	28·60
LUNATIC ASYLUMS, ETC.		Years				
St. Luke	203	·97	196	15	7·39	7·65
Hoxton House (Miles')	123	3·23	397	45	36·59	11·34
Bethnal House (Warburton's)	156	3·38	528	47	30·13	8·90
Grove Hall	152	2·66	405	54	35·53	13·33
Bethlem	394	·98	387	35	8·88	9·04
Surrey New County	234	3·16	739	95	40·60	12·86
Peckham House	184	2·60	478	49	26·63	10·25
Camberwell House	119	2·70	321	40	33·61	12·46
Total (or average)	1565	2·21	3451	380	24·28	11·01

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

March 15, 1851.

Edward W. Murphy, M.D., President, in the Chair.

The Mammillated Condition of the Legs in Certain Cases of Dropsy. By T. Nunn, Esq. In certain cases of dropsy, especially in those depending on chronic heart-disease, towards the closing stage of that malady, when the legs have become infiltrated with fluid, and when the distension of the skin has arrived at a pitch which seems to threaten its vitality, it will be found that the cuticle gradually cracks, and an exudation of serum takes place. The skin does not retain the waxy whiteness of anasarca, but changes to a reddish hue, or the cuticle separates from the true skin, and serum is poured forth. The surface next becomes uneven, and, within a few weeks, the whole leg, from the ankle to the knee, is studded with elevations, varying from the size of a pin's head to that of a pea; and in some parts they are grouped together, so as to form larger protuberances. They are moist and shining; around their base is a whitish pasty secretion, and serum oozes from their surface. A brownish-green staining encircles the limb above the tuberculated part in some cases. This state is a result of anasarca, widely different from the ulceration following the formation of bullæ, or the large open sores produced by the separation of sloughs. It is attended with a great deal of pain and smarting. When the tuberculisation of the limb is fully established, a profuse discharge of serum takes place. The fluid secreted has a peculiar faint sickly odour; it amounts to many ounces in the twenty-four hours. In proportion to the extent of the tuberculisation, and the amount of the discharge, is the relief experienced from the oppression of the vital symptoms, particularly of the respiration. When the discharge is checked from any cause, even for a few hours only, it is followed by cerebral disturbance and congestion, and by uneasiness about the cardiac region. In course of time, the mammillations shrink, the exudation becomes scanty, and at last entirely ceases, the leg being covered with a dryish scurf. Mr. Nunn believed this process of mammillation to be an effort of nature for the relief of the patient.

March 22, 1851.

Edward W. Murphy, M.D., President, in the Chair.

Prison Discipline. By Forbes Winslow, M.D. This paper contained an elaborate examination of the various systems of prison discipline, and of their influence on the bodily and mental condition of the inmates.

March 29, 1851.

Edward W. Murphy, M.D., President, in the Chair.

Symptoms, Diagnosis, and Treatment of Functional Diseases of the Uterus. By T. Snow Beck, M.D. This paper appears as an original article at p. 417 of our last number.

April 5, 1851.

Edward W. Murphy, M.D., President, in the Chair.

Excision of the Astragalus and Os Calcis. By Thomas H. Wakley, Esq. After some remarks on the subject of excision of joints, Mr. Wakley related the case of William Brown, on whom he performed, in December 1847, the operation of removal of the astragalus and os calcis for caries of these bones. The man recovered perfectly, and could now walk well. He was shewn to the members of the Society by Mr. Wakley a few evenings before the reading of this paper.

April 12, 1851.

Edward W. Murphy, M.D., President, in the Chair.

Diagnosis of Inflammatory Diseases of the Cervix Uteri; Use of Potassa Fusa, or Potassa cum Calce. By J. Henry Bennet, M.D. This paper appears as an original article at p. 448 of our last number.

April 19, 1851.

Edward W. Murphy, M.D., President, in the Chair.

Symptoms of Pulmonary Consumption. By John Hutchinson, M.D. The author desired to direct attention to three points: 1. Loss of weight; 2. Diminished breathing movements; 3. Morbid breathing sounds.

Loss of weight is a constant and primary sign; and there is no evidence of phthisis when the weight is undiminished. A person may lose weight and not have consumption; but he cannot have consumption without losing weight. The chest next changes in form and movement in respiration. The healthy chest is erect; the shoulders point backwards, and the deep inspiration is symmetrical, and swells out plentifully under the hand when laid over the upper ribs. The phthisical chest is not *erect;* the shoulders incline inwards and forwards, and the movement in respiration is more limited and pinched, as well as often non-symmetrical. The volumes of air expired were shewn to vary greatly in the healthy and in the diseased cases.[1] The morbid sounds are primarily of two kinds: sounds affecting the volume of air entering, as harsh, deficient, feeble; and, secondly, sounds produced by morbid secretions.

Loss of weight, diminished chest mobility, and morbid sounds, appeared in regular order: the third cannot exist without the second, nor the second without the first sign. They might exist without phthisis; but, when indicative of phthisis, their character was well-marked.

MISCELLANEOUS INTELLIGENCE.

Society of Apothecaries. The Court of Examiners of the Society of Apothecaries of London have lately come to a resolution, which is likely to exert a most considerable and a most beneficial influence upon the education of the general practitioners of this country. They have evinced their willingness to abandon the ordinary practice of testing the classical acquirements of their candidates in Celsus and Gregory at the termination of their medical studies, and have substituted a general classical and mathematical examination at the commencement of them. Students are to be admissible to this examination at any time, from the date of their apprenticeship to the termination of their first winter course of lectures. The object of this regulation appears to be twofold; first, to ascertain whether the student possesses sufficient general knowledge to enter upon the career of medical study, or whether he should not rather devote some months longer, or another year, to the acquisition of preliminary information; and secondly, to supersede the necessity of directing the student's attention to the Latin language, at a time when he has many other matters of more consequence to occupy his time. The subjects of the examination will be taken from those preliminary studies which are taught at every good school, and an attention to which is generally considered to be indispensable to the education of a gentleman. The subjects at present chosen are, the New Testament in Greek, the First Book of the Æneid, the Oration of Cicero pro Milone, the First Book of Euclid, and the principles of Arithmetic and Algebra. With the senti-

[1] See article "Thorax", in Cyclopædia of Anatomy and Physiology.

ments expressed in this Journal on the subject of the education of the Medical Profession, it is quite impossible for us to do otherwise than to accord to this plan our warmest commendation ; and our only regret is, that some such plan has not been adopted long ago. Admission into the church can only be gained through the portals of literature and science : and classical or mathematical examinations, or both, are now rendered imperative upon those who wish to enter the army, the navy, the East India Company's service, or even the merchant service ; and we should blush to think that our own honourable profession should lag behind in the general march of knowledge. A contemporary has remarked upon the extraordinary circumstance that the Court of Examiners of this Society, with the prospect of their own extinction before their eyes, should be devising and carrying out schemes for the amelioration of the profession : but we see no more anomaly in their doing so, than in a man making a just and equitable distribution of his property before he leaves the world. The Apothecaries' Society may or may not be abolished as an examining body; but the examiners deserve credit for sowing good seed, the fruit of which may probably be reaped by others. We are bound to say that their efforts are praiseworthy ; and whoever may be the parties who may eventually carry out their designs, we heartily wish them success. We ought to mention, that the Examiners of the Society intend to conduct the examination themselves ; that the first examination will be held on the third Saturday in October of the present year; and that no fee whatever will be required from the student.

The Resolutions above alluded to are the following :—

"At a Meeting of the Court of Examiners held at Apothecaries' Hall, March 10, 1851. It was Resolved unanimously,—

"1. That a preliminary examination for the junior students of the medical profession would be desirable, as an important auxiliary to their subsequent medical studies.

"2. That such examination should comprise an inquiry into the student's knowledge of the Latin and Greek languages, and of the elements of mathematics.

"3. That students should be admissible to such examinations at any period from the date of their apprenticeship to the completion of the first winter session of their curriculum.

"4. The such examination should, in the first instance, include the following subjects,—viz.:

"I. The First Book of Virgil's Æneid and Cicero's Oration for Milo.

"II. The Greek Testament, to the end of the Acts of the Apostles ; or, the First Book of Xenophon's Anabasis, at the option of the candidate.

"III. Algebra, as far as simple equations.

"IV. The First Book of Euclid's Elements.

"5. That students who pass this examination satisfactorily, should not be subject to any subsequent examination in Latin, except the *Pharmacopœia Londinensis* and prescriptions.

"6. That students who have not passed this examination should, for the present, be allowed as heretofore, to undergo the preliminary examination in Celsus and Gregory, after they have completed two winter sessions of their medical studies."

Liberal Proceedings of the Council of the Royal College of Surgeons. We are happy to lay before our readers the following resolutions adopted by the Council of the College of Surgeons on the 19th and 24th of March 1851. It is a remarkable coincidence that the Resolutions of the Court of Examiners of the Apothecaries' Society should have been passed only about a week before those of the Royal College of Surgeons. We have reason for believing that neither of these bodies was aware of what the other was doing. The steps taken by the Council of the College are meritorious ;

and as their present liberal conduct is in complete contrast to their celebrated manifestoes, issued hardly a year ago, we accord to their present proceedings a double meed of praise. We doubt, however, the necessity of handing over the General Practitioners to be examined by the College of Physicians, as we think that there are a sufficient number of fellows and members of the College of Surgeons, who are competent to act. We regret to find that not a syllable is mentioned of any preliminary examination ; a matter which we hold to be of the highest importance. We see no reason why Greek, Latin, and mathematics are to be reserved for the Fellows and withheld from the Members, any more than we could understand a system for giving classical and mathematical knowledge to bishops, and denying it to the parochial clergy.

The following are the RESOLUTIONS referred to :—

"1. That in the opinion of this Council, such parts of the charters and bye-laws of the College as restrict the eligibility to the Council to fellows residing and practising surgery within five miles by highway or road from the General Post-office in St. Martin's-le-Grand, should be abrogated.

"2. That in the opinion of this Council, such parts of the charters and bye-laws of the College as restrict the eligibility to the Council to fellows not having during the five preceding years practised *midwifery or pharmacy*, and require a certificate thereof by three fellows, should be abrogated ; and that instead thereof, a certificate by *three fellows*, and a declaration by *himself*, that the person nominated to be balloted for as a member of the Council does not practise as *an apothecary*, be required.

"3. That it is the opinion of this Council, that the medical qualifications of those about to engage in the *practice of surgery*, or in general practice, should be tested by the Royal College of Physicians.

"4. That the Council of this College are prepared to form and superintend a Board of Examiners in midwifery, or to cooperate with the Royal College of Physicians in the institution of examinations for testing the qualifications of practitioners in midwifery. (By order),

"EDMUND BELFOUR, Secretary."

CALDER MARSHALL'S STATUE OF JENNER. At length there is a prospect of a suitable monument being erected, in London, to Jenner,—one of the brightest ornaments of the medical profession, and one of the greatest benefactors of the human race. All honour to our Wellingtons and our Nelsons, and let them have the homage of the nation for which they so nobly fought and conquered ; but it is not one, but all nations, who have, and shall have, to bless the achievements of an Edward Jenner. Most fitting, therefore, is it to find the work of Mr. Marshall adorning one of the main avenues of the Great Exhibition of the Industry of all Nations ; and bearing upon it, that it is to be erected, in bronze, by contributions from the men and women of every country and of every clime. We believe that a most influential committee is at the head of this movement ; but we fear that no adequate means have yet been taken to correctly and widely apprise the public, and the medical profession, of what is contemplated. We would suggest that a public meeting be convened, under the presidency of one of the noblemen or gentlemen who sit in the committee ; and that a number of places be immediately appointed in London for the reception of subscriptions. The rates should perhaps be limited to a few pounds, and the smaller contributions of the masses be greatly relied on. The larger contributors might receive a miniature copy of the statue. A complete list of all the contributors, with their occupations and residences, should be kept, and printed. As more than the necessary sum may be raised, the possible surplus should at once be destined for some appropriate object,—say the formation of a fund for granting annuities to decayed members of the medical profession, to be called "THE JENNER FUND". We hope the committee will, without delay, inform

the public of the exact amount required for the erection of Mr. Marshall's statue in bronze, and of what they propose doing with the surplus, should such remain after the completion of their enterprise. We shall be glad to receive and publish the necessary information on these points. Dr. John Conolly, of Hanwell, is Acting Chairman of the committee; and George Vere Irving, Esq., of 10, Ampthill-square, is the Acting Honorary Secretary.

Resolutions unanimously adopted by the Royal College of Physicians of Edinburgh, regarding Practitioners of Homœopathy. We have much pleasure in giving publicity to the subjoined Resolutions. We hope that the London and Dublin Colleges will see the necessity of issuing similar manifestoes; *and of acting up to them.* Does Dr. William Henderson —the Homœopathic Professor of Pathology—still hold his Fellowship in the Edinburgh College of Physicians? We believe that a technical difficulty might interfere with any attempt at ejecting him from the University which he disgraces; but surely the College of Physicians has the power of expelling him from their body, if he do not voluntarily retire.

Resolutions. "At Edinburgh, and within the College Hall there, the 9th day of May 1851, an Extraordinary Meeting of the Royal College was held, pursuant to a Resolution agreed at the last Quarterly Meeting, and of which Extraordinary Meeting due notice was given.

"The President in the Chair. The following Resolutions were moved, seconded, and unanimously agreed to:—

I. That the Royal College of Physicians of Edinburgh did, several years ago, publicly express its opinion of Homœopathy and Homœopathic Practitioners, by peremptorily declining to admit into its body a Candidate for its Fellowship who belonged to that denomination; and, consequently, that no Fellow of the College can possibly be ignorant of the light in which all those who practise Homœopathy are regarded by the College.

II. The College regrets that, notwithstanding this decided expression of its opinion, more than one of its Fellows, after being admitted in a different character, have endangered the reputation of the College by becoming Homœopathic Practitioners; and the College expresses an earnest hope that these Fellows, seeing they have thus virtually separated themselves from the College, will spontaneously sever their further connexion with an Institution which repudiates them, and from which they can derive, as merely nominal Fellows, nothing else than a false position and a spurious credit.

III. The College feels the more bound thus to express its opinion, seeing that those Fellows who have become Homœopathists, and any other Medical Practitioners who follow Homœopathy, must necessarily be aliens to the other Fellows, and to the profession at large; inasmuch as no Fellow of this College, or any other Physician can, by any possibility, without derogating from his own honour, and from the honour of the profession, meet Practitioners of Homœopathy in consultation, or co-operate with them in the other common duties of professional life.

IV. That although the College has not thought it expedient hitherto to take any active steps for disclaiming those Fellows who have become Homœopathic Practitioners subsequently to their admission to the College, nevertheless, since it has the power of dealing summarily with those who act in a manner so unbecoming the character of a Physician, it reserves its right to exercise that power when it shall be so advised.

Signed in Name, and by Authority, of the College,

J. Y. Simpson, *President.*"

Next Meeting of the Provincial Medical and Surgical Association. The attraction of the Crystal Palace is so universally felt, that it is necessary to remind our readers that in making their engagements to see its contents, they should not forget the Anniversary Meeting of the Association, to be held at Brighton, on the 13th and 14th of August next. To those who can only leave home for a limited period, we would observe that the two objects may easily be combined, as Brighton is now reached from London in a couple of hours. (*Prov. Journal*, 28 May.)

Medical Students, and Unqualified Assistants practising Medicine. The Manchester Medico-Ethical Association have directed attention to this wide-spread abuse. We believe that the druggists of the present day, who prescribe, and who drive so lucrative a trade, commonly endeavour to obtain a smattering of knowledge by serving as visiting assistants with general practitioners: and many of this class first get into practice by fourpenny draughts and counter consultations; and then, if the neighbourhood require it, they whitewash themselves by passing the College or the Hall. Many unqualified practitioners are regular readers of new medical work., especially of the lighter medical periodicals. We think the profession might do something towards protecting themselves from the abuses referred to in this paragraph.

Sydenham Society. The Anniversary Meeting was held on the 1st May at half-past eight p.m., Mr. Phillips, F.R.S., Vice-President, in the chair. The Annual Report stated that there were about 2,000 subscribing members. The balance in hand was about £700. Mr. Rogers inquired as to the duties of the Secretary, and remarked on the large salary paid him, while the secretaries of the other medical societies of the metropolis served gratuitously. Some points of pecuniary importance he next touched upon, more especially with reference to £495 : 17 : 6 having been expended in one year in editorial charges. He finally commented on the fact, that few, if any, General Practitioners were on the Council, although the Society was mainly supported by them. This spirit of exclusiveness was owing, he thought, to their unwillingness to admit fresh blood into the corporation. The Secretary said, the average expense of editing was £100 per volume, and that of the twenty-four members of Council, five were General Practitioners. Dr. Copland spoke highly of the Secretary's services, and said he revised the productions of the Society before going to press. The following is the list of the new officers of the Society:—President, Sir James Clark, M.D., Bart., F.R.S. Vice-Presidents: W. P. Alison, M.D., F.R.S.; Sir John Richardson, M.D., F.R.S., K.C.H.; R. Cusack, Esq., M.R.I.A.; J. A. Paris, M.D. F.R.S., President of the Royal College of Physicians; J. A. Symonds, M.D.; B. Phillips, Esq., F.R.S.; R. Dunglison, M.D.; J. Hodgson, Esq., F.R.S.; C. Locock, M.D.; T. Shapter, M.D.; Sir C. Hastings, M.D.; A. D. Anderson, M.D.; T. Turner, Esq.; Professor Miller; A. Robertson, M.D., F.R.S. L. and E.; T. Watson, M.D., F.R.S. Council: E. F. Lonsdale, Esq.; E. L. Birkett, M.D.; A. B. Garrod, M.D.; W. R. Basham, M.D.; Golding Bird, M.D., F.R.S.; W. D. Chowne, M.D.; T. G. Balfour, M.D; Marshall Hall, M.D., F.R.S.; James Copland, M.D., F.R.S.; H. Powell, M.D.; R. P. Cotton, M.D.; John Forbes, M.D., F.R.S.; R. Quain, Esq., F.R.S.; E. Headland, Esq.; J. Hilton, Esq., F.R.S.; W. F. Barlow, Esq.; W. J. Iliff, Esq.; J. Pereira, M.D., F.R.S.; O. M'William, M.D.; C. C. de Morgan, Esq.; E. H. Sieveking, M.D.; J. W. Woodfall, M.D.; D. Maclachlan, M.D.; R. Partridge, Esq.

Royal Medical and Chirurgical Society and the Great Exhibition. At the close of the meeting of this Society on Tuesday last, the President announced that the Council had authorised him to admit foreign medical men visiting the metropolis, on the recommendation of a Fellow of the

Society, to attend their meetings during the remainder of the session, and also to avail themselves of their extensive library and reading-rooms.

Recent Prevalence of Small-pox throughout England. From the Registrar-General's Report of the first quarter of 1851, just issued, we transcribe the following illustrations to prove this prevalence, as likewise to show how much yet remains to be accomplished, ere the great benefits of vaccination are diffused throughout the entire population. From the above document it appears, that in St. Mary's District, Shrewsbury, amongst 13 fatal cases of small-pox, only one had been previously vaccinated. In Willenhall, Wolverhampton, out of 22 deaths by the same disease, 16 were unprotected. In Rowley Regis, Dudley, small-pox was also very prevalent, and the Registrar states, in no death by this disease had the patient been previously vaccinated. In another district of Dudley, out of thirteen deaths, ten were unprotected; whilst in a third division of the same town, among 58 deaths by variola, 30 were without previous vaccination. Again, in St. Mary's, Birmingham, amongst eighteen deaths by small-pox, only two or three were protected. In Aston, twelve deaths are likewise reported, nearly the whole being without vaccination. In Runcorn, out of forty fatal cases by variola, only three were vaccinated. Further, in one district of Oldham there were twenty-five deaths by small-pox, the greater portion of whom were unprotected; and, in the north division of Leeds, out of thirty-eight fatal cases twenty-six were never vaccinated; whilst in one district of Rochdale, all the eight deaths, registered from variola, never had been vaccinated. Other illustrations, of the same description, might be quoted; but it is superfluous to pursue the subject farther, excepting to observe, that in various localities there appears, it must be admitted, something more than want of attention on the part of parents in neglecting to take their children to the parish medical officers to be vaccinated, so prejudiced do they still seem against cow-pox, and also exceedingly doubtful with regard to its prophylactic virtues. It is, however, satisfactory to mention, on the other hand, that exceptions to the above lamentable ignorance, regarding the real value of vaccination, are occasionally met with; thus, in one district of Stockport, the local registrar reports, "It is now more than three years since I registered a death from small-pox, out of a population of between 12,000 and 13,000; which I attribute to the appointment of public vaccinators, and the attention parents now pay to the vaccination of their children". This fact is refreshing to hear, and ought to be held up for general imitation; for, if followed, variola might disappear, or, at all events, be of very rare occurrence.

APPOINTMENTS.

Gill, Dr. William, elected, by the Subscribers, Physician to the Nottingham General Hospital, on the 24th April, on the resignation of Dr. J. Calthorp Williams.

Massey, Dr. Isaac, appointed, on the 26th April, by the Magistrates, Surgeon to the Nottingham County Goal, in room of Mr. Henry Attenburrow, resigned.

Wright, Dr. Thomas, elected, by the Subscribers, Surgeon to the Nottingham General Hospital, on the 24th April, in room of Mr. Henry Attenburrow. resigned.

OBITUARY.

Baker, Dr. Edward, late of Walcot Terrace, of consumption, on the 17th May.

Kennedy, Dr. James, of Woodhouse, Leicestershire, at 24, Great Russell Street, Bedford Square, on the 9th May, aged 70. Dr. Kennedy had retired from practice.

MARSHALL, Dr. Henry, on the 12th May, after a protracted and painful illness. Dr. Marshall was born at Kylsyth, near Glasgow, in 1775. He studied medicine at Glasgow, and in 1803 became Surgeon's Mate in the navy, a service which he soon left; and, in 1805, was appointed Assistant-Surgeon to the Forfarshire regiment of militia. In 1806, he became Assistant-Surgeon to the 1st battalion of the 89th regiment, and proceeded with it to Ceylon, in which island he remained till the spring of 1821. In the same year, he was appointed to the staff, and stationed at Edinburgh. After two years, he went to Chatham, and from thence went to Dublin, as Surgeon to the recruiting depôt; from that time till 1830, Dr. Marshall was actively engaged in his public duties. He was then gazetted as Deputy Inspector-General of Army Hospitals, and retired on half-pay. About this time he settled in Edinburgh, where he remained till his decease. DR. MARSHALL was the instrument of many useful reforms being adopted with reference both to the moral and hygienic management of soldiers. His contributions to statistics and to military medicine are of great value. Besides numerous monographs in periodicals and Parliamentary Returns, he was the author of the following works: *On the Medical Topography of Ceylon; On the Enlisting, Discharging, and Pensioning of Soldiers; The Military Miscellany; Description and Conquest of Ceylon; On the Feigned Diseases of Soldiers*, etc., etc.

PHILLIPS, Richard, F.R.S.L. and E., F.G.S., on the 11th May, aged 72, having outlived most of his contemporaries in the field of chemical science. He was the friend and associate of Davy and Wollaston, and enjoyed the personal acquaintance of the most celebrated of the continental chemists; and he has been placed at the head of British analysts, by the venerable Professor of Chemistry in the University of Glasgow. In 1805 he published a memoir on the Bath waters, which attracted much attention, and this was followed by the examination of other mineral waters. The scientific publications of that day contain frequent and valuable papers on the composition of many rare minerals, and critiques on works on chemistry and pharmacy, contributed by him. From the year 1821, he was the conductor of the *Annals of Philosophy*, and when that serial was incorporated with the *London, Edinburgh, and Dublin Philosophical Magazine*, his services were secured as one of the editors of that journal—a post he held till his death. He was successively Lecturer on Chemistry at the London Hospital, at the Government Military College at Sandhurst, at Grainger's School of Medicine in Southwark, and at St. Thomas's Hospital. He also delivered several courses of lectures on chemistry at the London Institution, and lectured occasionally at the Royal Institution, and elsewhere. In 1839, Mr. PHILLIPS was appointed Curator of the Museum of Practical Geology, now in Jermyn Street, which office he held until his death, which event unhappily occurred on the day previously to the opening of that institution by His Royal Highness Prince Albert. In 1822, he was elected a Fellow of the Royal Society, of the Council of which Society he was a Member for some years before his death. He was one of the founders of the Geological Society, and, for the last two years, held the office of President of the Chemical Society of London. In 1824, Mr. PHILLIPS published his first translation of the *Pharmacopœia Londinensis;* and was subsequently consulted by the College of Physicians respecting the *Pharmacopœia* of 1836. Of this latter edition he published a translation, enriched with copious and valuable notes, which work ran through several editions. For the last few years he had been again engaged, in conjunction with a committee of that learned body, in experimenting, under their direction, upon the chemical preparations of the *London Pharmacopœia*, recently issued; and on a translation of this, he was employed a few evenings before his death. To the collection of additional information for this publication, he had devoted much labour and research, which we rejoice to find will not have been expended in vain; as we hear that a portion of the work has already been printed, and that its publication will soon take place. Valued and respected by all who enjoyed the pleasure of knowing him, for the frankness, and the simplicity of his character, as well as for his scientific attainments,

Mr. Phillips has closed a busy and active life, whilst yet both mental and bodily powers were undecayed, to the deep regret of a large circle of scientific friends, many of whom followed his remains to the cemetery at Norwood, where he was interred.

Shillito, Dr. Charles, late of Putney, at York Terrace, Regent's Park, on the 16th May, aged 69. Dr. Shillito became an Army Hospital Mate in 1799; a Member of the College of Surgeons in 1803; and an M.D. of Heidelberg in 1840. He was at one time a Member of the Court of Examiners of the Apothecaries Society.

BOOKS RECEIVED.

Canton (Alfred) on the Teeth. London: 1851. Eyre (Sir James). Practical Remarks on some Exhausting Diseases. London: 1851. Godfrey (Mrs.) on the Spine. London: 1851. Gregory (William, M.D.) Letters to a Candid Inquirer on Animal Magnetism. Green's (Horace) Introductory Lecture. New York: 1850. By same Author. Valedictory Address. New York: 1851. Johnson (Walter) on Hydropathic Statistics. *Pamphlet.* London: 1851. Lyons' Apology for the Microscope. Dublin: 1851. Morgan (Augustus de). Book of Almanacs. London: 1851.

TO CORRESPONDENTS.

Placenta without a Fœtus. We quote the following from a letter, dated March 29th, 1851, received from Mr. Thomas Underhill, Junr., of Tipton, Staffordshire. We do not feel able to give any explanation of the case; and we are also unable to refer to any one resembling it.

"I attended a very singular midwifery case some weeks since. The woman was in the ninth month of pregnancy, and had occasional gushes of hæmorrhage for the last three or four weeks, which led me to suspect placental presentation. When labour commenced, the hæmorrhage continued; and, as the os uteri dilated, I found the placenta occupying nearly the whole extent of the orifice. I punctured the membranes; a large quantity of liquor amnii flowed away, but I could not then ascertain the presenting part of the child. Labour proceeded, and in about two hours the placenta was expelled, with the bag of membranes nearly entire, and containing two large coagula, *but no sign of any fœtus.* I examined carefully the placenta; it was perfect, full-sized, had no funis attached, but merely a knotty prominence in the place where the funis should have been attached. The woman is now quite well. The case is, I believe, without parallel; at least I have never met with a similar one on record."

Medicines by Dry Inhalation. In reply to our correspondent who writes from Croydon, Surrey (as well as in reply to others who have asked for information on the same subject), we have to say, that formulæ for medicinal cigarettes are given by Dorvault, in his work entitled, *L'Officine ou Répertoire Général de Pharmacie Pratique.* The edition now before us—not the latest, we believe—was printed at Paris in 1844. We may afterwards give some extracts from this work.

The Great Exhibition contains numerous objects of much interest to our profession; and to some of them we propose to direct attention.

Communications for the Editors must arrive free of all charge at the Publishers'; or at the Printer's, Mr. Richards, 37, Great Queen Street, Lincoln's-Inn-Fields, London.

Foreign Works are received by M. Victor Masson, Rue de l'Ecole de Médecine, Paris; and also by any of the booksellers in Germany in correspondence with Messrs. Williams and Norgate, of Henrietta Street, Covent Garden, London.